TECHNOLOGY DEPT.

The EDISON ELECTRIC INSTITUTE BULLETIN

June 1958

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Report on 1958 Convention

J. W. McAfee

Ralph J. Cordiner

Elmer L. Lindseth

Lloyd D. Brace

Hon. Alan S. Boyd

Hon. Styles Bridges

C. A. Tatum, Jr.

Sara M. Jordan, M.D.

S. L. Drumm

Anthony G. De Lorenzo

Sherman R. Knapp

Robert R. Gros

Jose Rivera R.

Chas. E. Oakes

Admiral Ben Moreell

This Issue Contains All Addresses of the Meeting in Boston

ELECTRICAL RESEARCH STATISTICS
THE ELECTRIC LIGHT AND POWER INDUSTRY

Current Statistical Data Covering 100 Per Cent of Industry

(Includes Investor-Owned Companies, Cooperatives, and Government-Owned Utilities)

March 1957-1958

SOURCE AND DISPOSAL OF ENERGY—MONTH OF MARCH

	1958	1957	%
NET GENERATION* (Kwhrs in Thousands)			
By Fuel Burning Plants	39,916,705	41,008,107	− 2.7
By Water Power Plants	12,706,490	11,439,064	+11.1
Total Generation	**52,623,195**	**52,447,171**	**+ 0.3**
ADD—Net Imports Over International Boundaries	397,051	287,162	+38.3
Less—Company Use	157,620	167,064	− 5.7
Less—Energy Used by Producer	1,483,638	1,233,845	+20.2
Net Energy for Distribution	**51,378,988**	**51,333,424**	**+ 0.1**
Lost and Unaccounted for	4,676,413	5,166,088	− 9.5
Sales to Ultimate Customers	**46,702,575**	**46,167,336**	**+ 1.2**

CLASSIFICATION OF SALES

NUMBER OF CUSTOMERS—As of March 31st			
Residential or Domestic	46,940,261	45,990,738	+ 2.1
Rural (Distinct Rural Rates)	1,645,725	1,615,722	+ 1.9
Commercial or Industrial:			
Small Light and Power	6,211,934	6,119,518	+ 1.5
Large Light and Power	307,153	299,173	+ 2.7
Other Customers	184,106	177,689	+ 3.6
Total Ultimate Customers	**55,289,179**	**54,202,840**	**+ 2.0**
KILOWATTHOUR SALES—During Month of March (Kwhrs in Thousands)			
Residential or Domestic	14,026,035	12,618,157	+11.2
Rural (Distinct Rural Rates)	786,586	773,290	+ 1.7
Commercial or Industrial:			
Small Light and Power	7,830,705	7,440,081	+ 5.3
Large Light and Power	22,155,663	23,508,790	− 5.8
Street and Highway Lighting	462,742	429,055	+ 7.9
Other Public Authorities	1,041,135	965,475	+ 7.8
Railways and Railroads:			
Street and Interurban Railways	198,212	208,311	− 4.8
Electrified Railroads	153,613	170,273	− 9.8
Interdepartmental	47,884	53,904	−11.2
Total to Ultimate Customers	**46,702,575**	**46,167,336**	**+ 1.2**
Revenue from Ultimate Customers (Thousands)	**$797,337**	**$762,231**	**+ 4.6**

RESIDENTIAL OR COMESTIC SERVICE

AVERAGE CUSTOMER DATA—for 12 months ended March 31, 1958			
Kilowatthours per Customer	3,244	3,021	+ 7.4
Average Annual Bill	$82.40	$78.24	+ 5.3
Revenue per Kilowatthour	2.54¢	2.59¢	− 1.9

* By courtesy of the Federal Power Commission.

THE EDISON ELECTRIC INSTITUTE BULLETIN is published monthly by the Edison Electric Institute, an association of electric light and power companies in the United States and its territorial possessions. Its affiliate members consist of members of the Canadian Electrical Association and private electric utilities in Latin America and contiguous islands in the Western Hemisphere.

The objectives of the Edison Electric Institute are:

The advancement in the public service of the art of producing, transmitting, and distributing electricity and the promotion of scientific research in such field.

The ascertainment and making available to the members and the public of factual information, data, and statistics relating to the electric industry.

To aid its operating company members to generate and sell electric energy at the lowest possible price commensurate with safe and adequate service, giving due regard to the interests of consumer, investor, and employee.

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The EDISON ELECTRIC INSTITUTE BULLETIN

June, 1958

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J. E. CORETTE

Newly Elected President of the Edison Electric Institute

ANDROID

The EDISON ELECTRIC INSTITUTE
BULLETIN

Exciting New Era Seen for the Industry at 26th EEI Convention

More than 2,500 Attend Three-Day Boston Meeting; Theme Is 'POWER Is Our Business'

OPENING the 26th Annual EEI Convention in Boston, June 9-11, retiring Institute President J. W. McAfee predicted that the next two decades will be one of the most significant and productive eras in the history of the electric utility industry, with its dimensions, services and contributions to the nation dwarfing all previous achievements.

McAfee Predicts Great Sales

President McAfee forecast that by 1979—the 100th anniversary of the invention of the first practical incandescent lamp by Thomas A. Edison—the nation's electric light and power industry will have reached an annual sales level of 3 trillion kilowatthours, better than five times last year's record.

More than 2500 electric utility company executives and guests heard speakers outstanding in their fields discuss the exciting opportunities which will open for the industry between now and Light's Centennial. Among the subjects which were given important attention were atomic power, financing in an inflationary era, public and employee relations, employee education, economic problems threatening our free enterprise system, utilities' sales and promotion, executive health, management efficiency, and utility regulation.

One of the most rewarding meetings in EEI history, the Convention was characterized by a feeling of realistic optimism towards the future. While recognizing the great opportunities which lie ahead for electric utility companies, the speakers warned that the path would not be an easy one, and that many challenges would have to be met if the anticipated goals are to be achieved.

In keeping with the theme of the Convention, "POWER Is Our Business," the industry strongly reasserted that it stands ready, willing and able to supply all the power requirements of the nation now and in the years to come.

New Residential Promotion Program

One of the most significant developments of the three-day Convention, held in Boston's John Hancock Hall, was the approval by the Board of Directors of a new national sales promotion program for the electric industry, aimed at increasing the home use of electricity. This core program will be sponsored and administered by EEI, and manufacturers and trade allies are expected to cooperate by integrating their national advertising over their own names with the program.

The Institute's core program will be financed on a voluntary basis by EEI member companies wishing to participate, without any charge to non-participating members. The target date for getting the activity underway is 1959. In general, the program is

OFFICERS OF EEI

J. E. CORETTE, *President*
The Montana Power Company
Butte, Montana

ALLEN S. KING, *Vice President*
Northern States Power Company
Minneapolis, Minnesota

EDWIN VENNARD, *Vice President and Managing Director*
750 Third Avenue
New York 17, New York

H. S. SUTTON, *Treasurer*
Consolidated Edison Company of New York, Incorporated
New York, New York

A. B. MORGAN, *Secretary and Assistant Managing Director*
750 Third Avenue
New York 17, New York

New Members of the EEI Board of Directors

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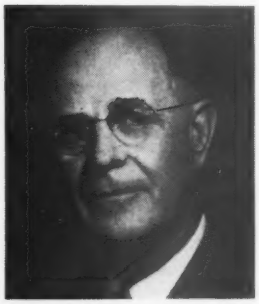
President, Pennsylvania Power & Light Co.

D. C. COOK
Vice President, American Electric Power Co., Inc.

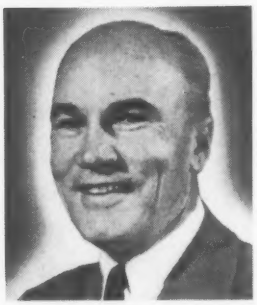
E. W. DOEBLER
Chairman of the Board, Long Island Lighting Co.

R. R. DUNN
President, Potomac Electric Power Co.

C. E. EBLE
President, Consolidated Edison Co. of N. Y., Inc.

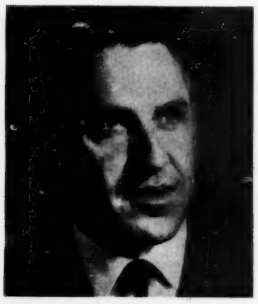


F. I. FAIRMAN
President, Kentucky Utilities Co.



P. A. FLEGER
Chairman of the Board, Duquesne Light Co.

D. E. KARN
President, Consumers Power Co.



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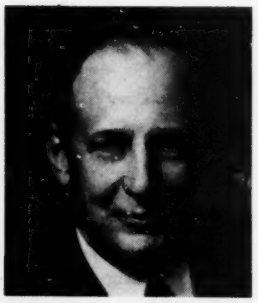
J. L. RICE, JR.
President, West Penn Electric Co.

E. D. SHERWIN
President, San Diego Gas & Electric Co.

N. R. SUTHERLAND
President, Pacific Gas and Electric Co.



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W. F. TAIT, JR.
Vice President, Public Service Electric and Gas Co.

WILLIAM WEBSTER
Exec. Vice President, New England Electric System

C. H. WHITMORE
President, Iowa-Illinois Gas and Electric Co.

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Co.

NEW PRESIDENT OF THE INSTITUTE

J. E. CORETTE, President and General Manager of The Montana Power Co., has been elected President of the Edison Electric Institute by its Board of Directors. Installation of the new President was made June 11 at the closing session of the Institute's 26th Annual Convention.

Vice President of the Institute since last December, Mr. Corette succeeds J. W. McAfee, President of the Union Electric Co., as head of the nation's electric utility trade association.

Mr. Corette has been President and General Manager of Montana Power since 1952.

Born in Butte, Mont., Mr. Corette received his early education in the schools of his home city. He attended Montana State University in Missoula, and was graduated from the University of Virginia with a law degree in 1930.

For the following 14 years, he was actively engaged in the practice of law throughout Montana, and has been a partner in the law firm of Corette, Smith & Dean from 1934 to the present.

In 1934, he became counsel for Montana Power, serving in that capacity until 1944, when he was elected Vice President and Assistant General Manager of the company. He became a Director in 1948 and was elected President and General Manager four years later.

In the fall of 1957, the U. S. Department of State designated Mr. Corette as the United States delegate to the 15th session of the Committee on Electric Power, one of the principal subsidiary bodies of the United Nations Economic Commission for Europe. The Committee met in Geneva, Switzerland, last October, and Mr. Corette participated in studies of such matters as the transfer of electric energy across frontiers and problems of rural electrification. He also served as principal spokesman for the United States at the fifth session of the Committee's working party on rural electrification during the same period.

Extremely active in business and civic organizations in the United States, Mr. Corette is a Director of the Federal Reserve Bank of Minneapolis, a Director of the National Association of Electric Companies, and a Trustee of the Endowment Foundation of Montana State University. He is a member of the United States Chamber of Commerce and a past Director of the National Association of Manufacturers.

Mr. Corette is a devoted family man and the son of pioneer residents of Butte, the late Mr. and Mrs. J. E. Corette. His father, for many years one of the state's most prominent attorneys, was the senior partner in the law firm of Corette and Corette.

Although he is a lawyer by training, his grasp of engineering problems and techniques has earned Mr. Corette wide respect among the engineers of his company.

His career has also included the operation of a 75,000-acre cattle and sheep ranch and he was once a partner in a contracting firm engaged in heavy construction work.

Mr. Corette's hobbies are typically western in that they are geared to the out-of-doors. One of his favorite sports is riding horseback through the mountain trails of Glacier National Park with his family. He has played tennis for years and also enjoys duck and pheasant shooting, golf and skiing.

The Institute's new President is married to the former Elsie Pauly. The Corettes have four children—two boys and two girls.

aimed at increasing residential use of electricity through selling of more appliances, more and better home lighting, more wiring capacity, and by educating consumers about the advantages of electricity in the home.

Stability of Electric Industry

On June 8, the eve of the opening of the Convention, President McAfee, in a statement to news media, said the utility industry has demonstrated again its inherent stability in recession periods and that the general downturn in the nation's business has had relatively little effect on the electric utility companies.

Sales in dollars for the first quarter of 1958, Mr. McAfee pointed out, exceeded by 5 per cent those for the similar 1957 period. Sales in the first three months of this year amounted to $2,440,000,000. Citing the continuing healthy growth of the industry, Mr. McAfee revealed that in the first four months of 1958, average residential use rose from 3,174 kwhr to 3,264 kwhr, despite the general business slowdown.

Construction Program Hits Peak

The industry's stability, he asserted, also exerts a stabilizing influence on the whole economy. Mr. McAfee noted that this year's construction program for electic utilities calls for a record high expenditure of $5.2 billion, with $4 billion going into investor-owned companies. He also noted that this year the industry will install a record high 15,750,000 kw of new generating capacity.

Discussing the present status of the nuclear reactor program, Mr. McAfee emphasized that there is no nuclear reactor which anyone can build today that will give as good an economic result as modern, conventional power plants. He said, however, that the industry plans to spend more than $500 million on atomic projects, with half the amount to be spent by the end of 1959.

Election of Officers

J. E. Corette, President of The Montana Power Co., Butte, Mont., was elected President of the Institute, succeeding Mr. McAfee, President of Union Electric Co., St. Louis.

Mr. Corette was installed as President at the last session of the Convention on Wednesday afternoon. In accepting the Presidency, Mr. Corette told the electric utility leaders that Americans will hear more from our industry about the danger of socialism. He warned that there were far too many examples throughout the United States of business standing by and watching the gradual creeping paralysis of our free enterprise system, with its ever-growing loss of freedom, loss of opportunity and loss of our form of government.

Corette's Pledges

The new President pledged that his major effort would be to awaken American business and labor to the importance of preserving and encouraging this great industry; to the importance of everyone taking a far greater interest in government; and to the very real importance of not losing the first great battle in the war against socialization, which has been raging for years.

Remarks of J. E. Corette in Accepting Presidency of the Edison Electric Institute

THE presidency of the Edison Electric Institute is an honor, a privilege and a challenge I did not expect to be conferred upon me—a utility executive, lawyer and rancher, working for a medium-sized western company. I am deeply grateful for this honor. I accept with humility and with some timidity because of the many problems confronting this great electric power industry today. However, I accept with real pleasure and enthusiasm because I'd like to take a shot or two at these problems and see if I can't add a few more bullet holes to the ones which have been put in them by my illustrious predecessors in this job.

I shall endeavor to express my appreciation to the industry by working conscientiously and courageously and by devoting the very best of my ability to the task before me.

EEI's Basic Purposes Will Be Carried Out

Naturally, I shall carry on the basic purposes of the Institute in research, in the gathering and exchange of information and in the continuing effort to improve the electric facilities of the Nation so that we are able to provide the people of America with the best possible service at the lowest possible rates.

However, my greatest effort will be devoted to the more serious, far more difficult problem which faces the electric power industry and, in fact, the entire Nation.

There are far too many examples throughout these United States of American business standing by and watching the gradual, creeping paralysis of our free enterprise system with its ever-growing loss of freedom, loss of opportunity and loss of our form of government. We in the electric power industry realize that, despite our constant efforts, the very gradual socialization of our industry and the country continues, but few others have this realization.

The electric power industry today has more than $36½ billion invested, pays almost $2 billion a year in taxes, employs 350,000 people and has annual capital expenditures greater than the telephone industry, the steel industry, the railroad industry or the automobile industry.

In the last 10 years, the average increase in dollars spent on new plant has been 12.5 per cent per year. Even if this average were reduced to 6 per cent annually for the next 10 years, the investor-owned utilities of this Nation would have invested in plant nearly $100 billion by 1968. And if taxes continue their present trend, this industry's contribution to federal, state and local governments in 1968 will exceed $5 billion annually.

If this investment is forfeited to government or public ownership, if this taxpaying contribution is destroyed, you will see immediately the enormous impact on federal spending, on government income budgets, on the entire economic structure of the country.

As president of the Edison Electric Institute, my greatest effort will be to awaken American business and labor to the importance of preserving and encouraging this great industry, to the importance of everyone taking a far greater interest in government, to the very real importance of not losing the first great battle in the war against socialization which has been raging for years.

It has been my privilege to have traveled through Europe on two occasions during the last year. I have observed both business and labor in European countries. I have seen the European laboring man performing difficult, manual work for wages of 30 cents to 75 cents an hour and paying almost the same prices for everything he buys that the American working man pays.

Only in the United States and Canada can the working man own his own home, drive his own car, and enjoy the convenience of his own power lawn mower, his own electric range, his own electric water heater, his own electric appliances which serve him and his family from morning until night.

This prosperity for the working man—for all of us—has been made possible by our type of freedom and initiative, our system of private ownership and profit. It could be achieved in no other way.

Industry Knows of Danger

Our industry needs no warning about the danger to these things, but others do. I earnestly hope that each one of you will join me during the coming year in making the greatest effort in our history to convince the rest of American business and labor of the overwhelming importance of this problem we all face.

As I approach 30 years of association in the electric power industry, I am convinced that no group of companies has more dedicated, more industrious, more capable, or more honest people. I am convinced that, with the story we have to tell the American public, and with a unity of purpose, we cannot fail in our mission.

There is no industry association in the world I would rather work for than this Institute. Again, I thank you for electing me your President for the coming year.

Allen S. King Elected Vice President of Edison Electric Institute

Allen S. King, President of Northern States Power Co., Minneapolis, Minn., was elected Vice President of the Edison Electric Institute.

Mr. King has been President of Northern States Power Co. since 1954.

Born in Minneapolis, Mr. King began working for NSP as a meter repairman while still in high school. He continued to work for the company during summer vacations from Massachusetts Institute of Technology, where he was graduated with a degree in electrical engineering in 1922.

His first full-time assignment with NSP was as engineer on a steam main construction job in Fargo, N. D. This was followed by a year in the credit department of the company's Minneapolis office and by assignments in the testing laboratory and the Riverside steam generating station, also in Minneapolis.

Returning to Fargo, Mr. King worked for a time as a results engineer in the power plant. In August, 1924, he was advanced to engineer of the Fargo division and about a year and a half later was appointed general superintendent of the Fargo division. In 1930 he became manager of the Minot division. Four years later he was transferred to Grand Forks, N. D., as division manager and in 1945 moved on to become Fargo division manager with general supervision of the company's activities in the state of North Dakota.

ALLEN S. KING

He was named Executive Vice President of Northern States Power Co. in 1951 and elected President of the company in January, 1954.

Mr. King has served on EEI's Advisory Committee and its Atomic Power Committee and is a member of its Board of Directors. He is a member of the Association of Edison Illuminating Companies, the Engineers Club of Minneapolis, and other professional and civic organizations.

Allen S. King, President of Northern States Power Co., Minneapolis, Minn., was elected Vice President of the Institute, and Harold S. Sutton, Treasurer of Consolidated Edison Co. of New York, Inc., was re-elected EEI Treasurer. Sixteen member company executives were named to the Board of Directors. Edwin Vennard was re-elected Vice President and General Manager of the Institute, and A. B. Morgan was re-elected EEI Secretary and Assistant Managing Director.

Prize Awards

The Duquesne Light Co. of Pittsburgh, Pa., for its pioneering role in the development of the world's first full-scale nuclear power station devoted exclusively to peaceful purposes, was the 1957 winner of the Charles A. Coffin Award. This award, the industry's highest honorary symbol of achievement, is presented annually as a tribute to the memory of the late Charles A. Coffin, founder of General Electric Co. It was established in 1922. The award was presented to Philip A. Fleger, Chairman of the Board of Duquesne Light, by Robert Paxton, General Electric President.

Consumers Power Co. of Jackson, Mich., won the 1957 Reddy Kilowatt Annual Report Award. The award was presented to D. E. Karn, President of Consumers, by Ashton B. Collins, President of Reddy Kilowatt, Inc. Class winners in the Reddy Kilowatt Contest were: Wisconsin Electric Power Co., Oklahoma Gas and Electric Co., Kansas Gas and Electric Co., Interstate Power Co., Nova Scotia Light and Power Co., Central and South West Corp., Arkansas Power and Light Co., and Rockland Light and Power Co.

Social, Recreational Activities

Highlighting the social activities for the ladies was the Ladies' Luncheon and program of entertainment at noon Wednesday in the Ballroom of the Somerset Hotel. A fashion show followed the luncheon. Special guest at this affair was Ilka Chase, actress, author and one of America's most fashionable women. After the fashion show, buses were provided to transport the ladies to the open-air art exhibit in Boston's Public Garden.

On Tuesday afternoon Dr. Sara Jordan, Director of the Department of Gastroenterology at the Boston Lahey Clinic and a featured Convention speaker, was honor guest at a tea for the ladies in the Dorothy Quincy Room of John Hancock Hall. Dr. Jordan's address to the Convention also was brought into the Dorothy Quincy Room by special wire so the ladies could hear her discuss "Health Is Also Your Business."

Musical Program

An outstanding musical entertainment program was provided for the delegates, ladies and guests on Wednesday evening at Symphony Hall through the courtesy of Westinghouse Electric Corp. Arthur Fiedler conducted the world-renowned Boston Pops Orchestra in a program of popular and classical music to please the tastes of all the guests. Robert Merrill, one of the Metropolitan Opera's leading baritones and who is equally well-known through his outstanding recordings and television appearances, and Anna Maria Alberghetti, young Hollywood soprano, were guest soloists with the orchestra.

Two electric light and power companies were elected members of the Institute—Florida Power & Light Co., Miami, and Maine Public Service Co., Presque Isle.

McAfee Gives Thanks

President McAfee, in closing the Convention, expressed his appreciation for the devoted efforts of many people who worked long and hard to

Enrique M. Gonzalez, second from left seated, president of Camara Nacional de Electricidad, Mexico electric company association, and other Latin American utility representatives attended the 26th EEI Convention in Boston. Seated, from left are: David H. Matson, Mexico; Mr. Gonzalez; Henry B. Sargent, president, American & Foreign Power Co.; Walter E. Spurling, Bermuda; Gustave Maryssael, Mexico. Standing, from left, are: Javier F. Montejo Ortuno, Costa Rica; Mario J. Johanning, Costa Rica; Guillermo Davis, Peru; Joseph J. Cussen, Chile, and Grant A. Hylander, American & Foreign Power Co.

make the Institute's 26th Annual Convention a success.

Program Committee Lauded

He thanked the Program Committee, under the Chairmanship of P. H. Powers, President, West Penn Power Co., which over a period of months gave generously of their time, thought, telephone and travel budgets to give the meeting its inspiration and substance. Program Committee members, in addition to Mr. Powers, included T. G. Dignan, President, Boston Edison Co.; C. J. Forsberg, President, Wisconsin Power and Light Co.; R. H. Gerdes, Executive Vice President, Pacific Gas and Electric Co., and W. W. Lynch, President, Texas Power & Light Co.

Boston Edison's Part

"To our hosts of the Boston Edison Co., and to all the utilities of this area," Mr. McAfee said, "may I say that New England hospitality should be a new by-word. The graciousness and helpfulness of Tom Dignan and his associates have made our stay in Boston very pleasant indeed, and I know that we will not want to let anything like 25 years pass before we come to Boston a second time."

Mr. McAfee expressed his thanks to Westinghouse for the musical entertainment program, to the manufacturers and others interested in the progress of our industry, and to *Electrical World* for its coverage.

Fleger Accepts Coffin Award

Philip A. Fleger, center, Chairman of the Board, Duquesne Light Co., receives the Charles A. Coffin Award for 1957 from Robert Paxton, General Electric Co. President, at 26th EEI Convention. J. W. McAfee, retiring Institute President, is at right. (Story on page 178.)

1958-1979—Obligations and Challenges

By J. W. McAfee

President, Edison Electric Institute and President, Union Electric Co.

An address before the Twenty-Sixth Annual Convention of the Edison Electric Institute, Boston, Mass., June 9, 1958

IT seems particularly appropriate that we meet in Boston this year. No matter where in the United States our own personal roots may be, we cherish the values and traditions which first had their expression on this continent here in New England.

One of the hallmarks of tradition hereabouts has long been that tendency towards stern self-appraisal and recognition of duty which goes under the name of the "New England conscience."

I believe that a form of New England conscience has begun to show itself throughout the nation, and I view it as a very healthy sign. Americans everywhere seem to be looking with new eyes at what they are doing in science, education, defense, government, economic progress, and other important aspects of their lives which too often they have been content to take for granted.

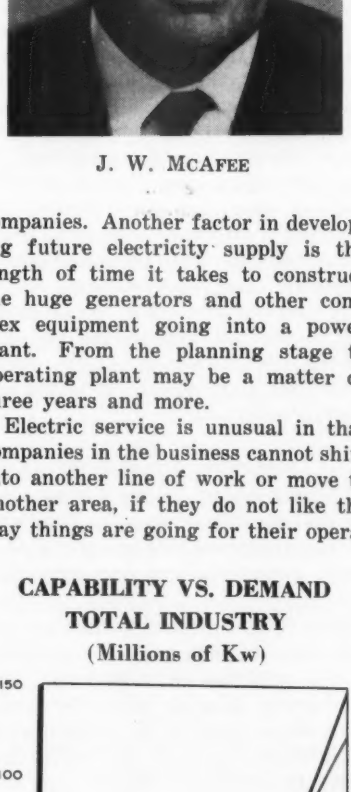
New Challenges Faced

Further, they are demanding evidence of vigorous, constructive thought and action to achieve new high levels of American accomplishments. And I think that more and more there is detectable on the part of many individuals a determination to meet their own obligations in the American tradition and to face courageously challenges of a scope and complexity never before encountered.

In line with this spirit of examination and evaluation, I look upon this discussion of our industry's progress as being in the nature of a report to the American people on how we of the electric companies are meeting our obligations and facing our challenges.

First of all, we have to make clear why our industry sees tomorrow as one of the most essential responsibilities of today.

Electricity cannot be stockpiled for the future—it has to be right there on tap at the instant new demands for it are made. So looking at tomorrow and appraising it has become a highly developed art in the electric



J. W. McAfee

companies. Another factor in developing future electricity supply is the length of time it takes to construct the huge generators and other complex equipment going into a power plant. From the planning stage to operating plant may be a matter of three years and more.

Electric service is unusual in that companies in the business cannot shift into another line of work or move to another area, if they do not like the way things are going for their operation. You cannot move miles of transmission lines, tremendous generating plants and all of the expensive equipment going into electric service from one part of the nation to another because you may not care for developments in your present territory.

This fact of being married permanently to one basic line of work in a single area makes for a strong sense of responsibility on the part of electric companies. This is not so much a virtue of our characters as companies and individuals. It is rather the clear recognition that, for better or for worse, we can do only as well as the communities we serve. And, when this sense is multiplied in electric service areas across the nation, it means that the electric companies as an industry are a responsible and potent force for progress for the entire United States.

So, when we say that we will continue to be ready, willing and able to supply all the power requirements of the nation, we are not bragging. We simply state a fact of life for this industry—one which we have proved to be true time after time in the past.

CAPABILITY VS. DEMAND
TOTAL INDUSTRY
(Millions of Kw)

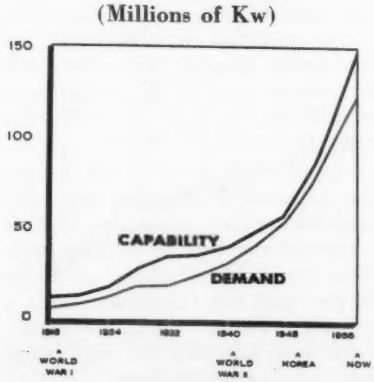


Figure 1

Electricity More Vital

Day after day, electricity becomes increasingly important to our rising standard of living, whether it is in a modern, all-electric kitchen, or on an electronically controlled production line. And electricity becomes increasingly vital to our national defense, whether in the production of bombers and missiles, or in the fantastically complex systems of computers, radars, and weapons which are constantly on the alert to counter any attack against us.

An indication both of the tremendous rise in the importance of electricity in the progress and protection of our civilization and of how well our industry is prepared to meet any demands on it is shown by a comparison of loads and generating capabilities over the last four decades—a period which includes times of great national crisis. (Figure 1)

We have emblazoned in our memories words of appreciation spoken by those with heavy responsibility for the fate of the nation. Dwight D. Eisenhower, when he was U. S. Army Chief of Staff, said, "American electric power was one of victory's weapons in World War II. Emergency demands, great in volume and complexity, were met fully and promptly by the American utility industry."

Power Never Too Little or Late

J. A. Krug, Director of the Office of War Utilities, said, "Power has never been too little or too late."

And the Navy's Admiral W. R. Monroe, said, "When we called for power we got power and not—Thank God—alibis."

The ability to produce electric power to meet the nation's needs is not something created on a crash basis, which expands and contracts with changes of temperature in the cold war or with economic fluctuations. It is based on the sum total of what we see as necessary to serve well all the communities of which we are a part, and which make up the larger community—the United States.

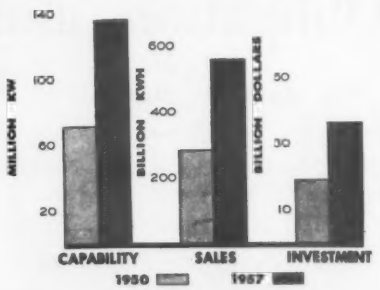
An electric company knows its service area intimately—it has to. Typically, it knows of any large new industry coming into its territory, and may even have helped to bring it in as part of an area development program. In a completely different field, that of home use, the company will have charted growth for years into the future, taking into account such factors as the rise in air conditioning.

In yet another field, company personnel will be working on civic improvement projects to help make the communities receiving its service more prosperous and better places in which to live and work. All these and many other considerations will be reckoned into the calculations of what electrical needs will be in the years ahead.

When you forecast the future and help it along on a firsthand practical day-by-day basis like this, you are not theorizing or hoping. You have a pretty good idea of what that future will be—and you can develop a solid foundation for sound action.

One of the most important mediums for putting together information and data from every part of the industry is the Edison Electric Institute. And, through a variety of programs and projects, the Institute helps its member companies put the experience and abilities of others to work for the advancement of electric service everywhere, to the over-all benefit of the public.

SEVEN YEARS' GROWTH*



*Capability and Sales—Total Industry; Investment—Investor-Owned

Figure 2

This has been and is being done successfully through the unselfish cooperation of the individual electric companies. And, on the part of some 1800 EEI committee members, it means the devotion of a great deal of time and effort away from their own company assignments and duties. As members of 60 committees, these committeemen contribute their specialized knowledge and understanding to a wide range of subjects in the accounting, commercial, engineering and operating fields, as well as to many other matters of high importance to the industry's progress.

Committees Are Institute

I cannot review the work of each of the EEI committees to you. They *are* the Institute; and they merit our sincerest congratulations and appreciation.

Basic to the Institute's effectiveness in serving the industry and the public is the widespread nature of its membership. Member companies serve about 96 per cent of all customers of the investor-owned electric utility industry in the United States.

A membership development of more than national significance has come about through the admission to EEI as affiliate members of electric companies from 15 countries of Latin America and the Caribbean. May I say we are delighted with the opportunity this presents to work more closely in sharing the benefits of EEI activities with our neighbors and friends to the south.

At the end of April, the General Office of the Institute was moved to a new 34-story building, 750 Third Avenue, in New York City.

EEI's Relocation

This is EEI's first relocation since its organization in 1933. For 25 years it occupied quarters in the Graybar building at 420 Lexington Ave., expanding until its activities took parts of three floors. In the new building, all of the staff functions are on one floor—the sixteenth—making possible more economic and efficient administration.

The staff of the Institute now numbers some 90 men and women whose basic mission it is to provide the services required by the EEI committees to facilitate their work.

One of the tasks the Institute has undertaken for this industry report is the development of a forecast for the year 1979, which will be the 100th anniversary of Edison's invention of the first practical incandescent electric light. Months of study and careful evaluation have gone into this examination of the future, and the results may be surprising, even to people as accustomed as we are to studying the prospects of the years ahead.

Before we look 21 years hence, it will be well to check our perspective by recalling briefly some of the accomplishments of the recent past. These provide both the "launching pad" and the impetus for our future progress. (Figure 2)

In just seven years, or about one-third of the forecast period, the entire electric industry has nearly doubled its sales, from 281 billion kilowatthours in 1950 to 558 billion last year. During the same seven-year span, generating capability has almost doubled, from the 1950 figure of 71 million kilowatts to the 1957 total of 135 million kw. And the investment by the electric companies alone in electric plant and equipment has risen nearly twofold from about $19 billion in 1950 to $36.5 billion at the end of last year. This is truly a remarkable record.

Quite frankly, our industry has always been conservative in predicting the magnitude of its future. Before developing the forecast for 1979, EEI compared about a dozen published forecasts made by various authorities

CAPACITY ADDED BY YEARS
TOTAL INDUSTRY

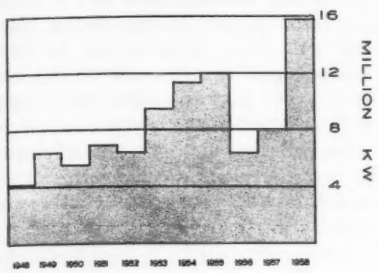


Figure 3

CONSTRUCTION EXPENDITURES, INVESTOR-OWNED

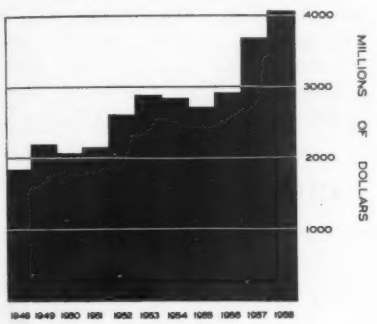


Figure 4

in the past with actual performance by the industry. Here's what happened in kwhr sales.

An electrical manufacturer and EEI both forecast 10 years ago that annual electric industry sales would reach about 370 billion kwhr in 1957. They were about one-third below the actual figure. Another manufacturer and a leading electric industry trade publication two years later predicted 1957 sales to be 435 billion kwhr—and were low by more than 20 per cent. Predictions made within the last three to five years fell short of the actual 1957 performance by from 5 to 14 per cent.

This may indicate why seers in any activity should be modest men, disclaiming infallability. It also indicates why the electric industry, in its expansion plans, takes great care to provide the means of meeting needs beyond those which may be predicted.

Certainly our plans for adding new generating capacity this year show we have no fear that the future will not be at least as remarkable as the past. 1958 will be a record year for new construction in the power business, with the installation of some 15¾ million kw. (Figure 3)

This exceeds the previous high record set in 1955 by more than 3 million kw and is about equal to the total net installations of the 10 years between 1936 and 1946.

To accomplish their part of this year's construction, by far the greatest proportion of the industry total, the electric companies have budgeted about $4 billion. (Figure 4)

During the last 10 years, the electric companies have averaged about $2½ billion annually for new construction. The figure for 1957 was $3.7 billion.

Our construction program is being carried out with full awareness of the current economic situation. It is dramatic proof of the faith and confidence we have in the basic soundness of the economy and its great potential. Further, because the electric companies represent such a significant influence in the stability and growth of the entire economy, we feel a responsibility to do what we can in stimulating an upward trend.

In looking to 1979, we view the current situation as a breathing spell. In the past, readjustments like this one have been followed by greater gains in the economy than before. (Figure 5)

So one of the bases of our forecast is the conviction that the economy will continue to grow. We also assume that no shooting war will occur. Basic, too, is our belief that the American people will continue along the road of individual initiative and will not adopt the tenets of socialism as major ground-rules for the operation of their government.

But we assume that the pattern of

ECONOMIC TRENDS
(Index)

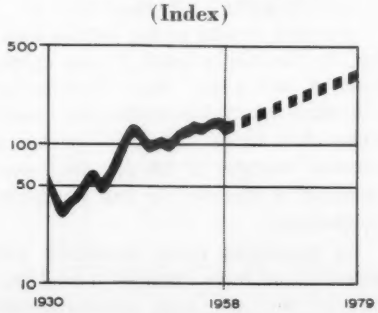


Figure 5

GROSS NATIONAL PRODUCT
(Billions of Dollars)

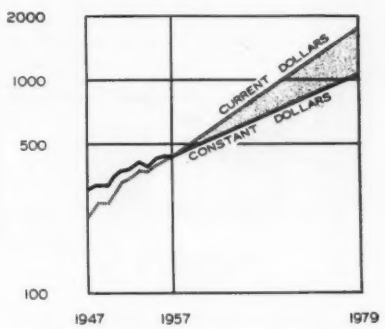


Figure 6

POPULATION AND HOUSEHOLDS
(Millions)

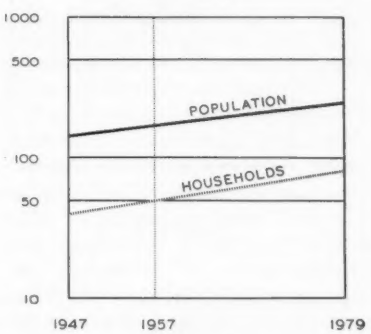


Figure 7

government activity as it affects the economy will move along the lines already established. We expect that government spending will proceed at about the present rate, that tax structure will show no significant alteration, and that fluctuation of interest rates will be experienced as in the past. And that there will be further inflation.

In making our forecasts, we made use of a number of guidelines in the economy which bear a relationship to our industry. Predictions of the Gross National Product, for example, are helpful to us in getting information on future sales of kwhr. By 1979, we estimate that GNP will reach about $1 trillion in 1957 dollars, about 2½ times last year's total. If the present rate of inflation continues, the current dollar figure would be $1.7 trillion in 1979. (Figure 6)

The $700 billion is attributable to inflation.

CURVES

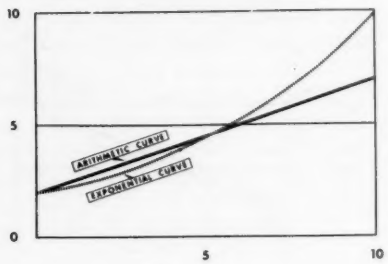


Figure 8

KWHR SALES, TOTAL INDUSTRY
(Billions of Kwhr)

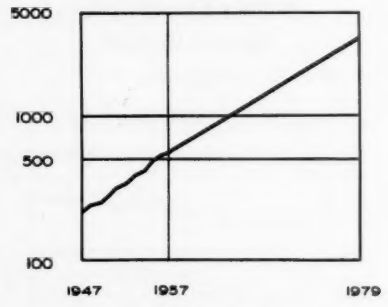


Figure 9

Population trends and the formation of households are also factors which are helpful in predicting power output and other data. (Figure 7)

Population forecasts have always produced rather accurate results, so these are particularly useful in checking our own predictions. Population is expected to be about 250 million in 1979, nearly half again the population of last year. And households will total more than 82 million, including an increase of two-thirds over 1957.

A brief description of our trending process follows.

When data for any given factor are plotted on a chart, two basic types of line can result. (Figure 8)

The first is the straight-line type of relationship, or arithmetic curve. The second is the exponential relationship, depicting a constant percentage of increase. This is the kind of curve characteristic of many phases of electric industry performance. But in dealing with a curve that rises at a fixed rate of increase, we run into problems. It is difficult to predict its future course because of the constantly changing slope. The task is much easier when we are dealing with a straight line.

Let us assume that points of past performance have been plotted on graph paper having equal distances on both the vertical and horizontal scales, and that these points reveal a constantly rising curve. We can then plot the points on semi-log graph paper in order to express that curve as a straight line. This facilitates the projection of past trends into the future and makes it easier to see what may be expected in the years ahead. We are using charts drawn on semi-log paper, which is characterized by constantly decreasing spaces on the vertical scale.

The theory behind forecasting is that if we have enough past information about a particular factor, and if we can make reasonable assumptions about the future, then these two sets of data can be used as a guide to what is likely to happen in the future.

For the electric industry, we trended the record from 1933 to the present and projected it to 1979. The results correlate remarkably well with the indices of other factors in the economy.

In the centennial year of Edison's electric light, then, we see annual sales for the industry of about 3 trillion kwhr. (Figure 9)

This is over five times the sales for last year. To reach this figure, an annual rate of growth of about eight per cent is estimated, with a doubling of sales every nine years. Startling as that 3 trillion figure may seem to be, it may even be conservative in view of past performance and what can be foreseen. Remember, we have consistently undershot in the past, not through objective use of statistics, but primarily because the indicated growth seemed so hard to believe at the time.

Now, what is the magnitude of the electric plant which will produce those 3 trillion kwhr? (Figure 10)

By 1979, it will be 665 million kw—nearly five times what it was at the end of last year. Peak load is expected to reach 578 million kw—more than five times the 1957 peak. A reserve margin of 15 per cent over demand is included in the capability projection.

In predicting sales, capability and demand, we have assumed a load factor of 66.6 per cent, approximately the present average for the nation. There are many variables which enter into the load factor picture, including increasing summer load and a growing trend toward selling electric heating and other applications to keep summer and winter peaks in balance. We believe that the sales and promotion abilities of the companies will be exercised imaginatively and efficiently during the years ahead, with the result that load factor will continue at about today's level.

Of the 665 million kw predicted for 1979, about 500 million, or better than 75 per cent will be in plants of the investor-owned electric companies. What will this mean in terms of money invested?

In terms of the dollars expected to be current in 1979, taking inflation into account, electric company plant investment will be about $221 billion —nearly six times the $36½ billion at the end of last year. (Figure 11)

CAPABILITY AND DEMAND TOTAL INDUSTRY
(Millions of Kwhr)

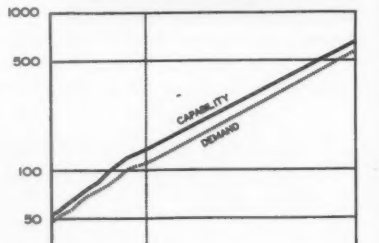


Figure 10

ELECTRIC PLANT INVESTMENT INVESTOR-OWNED
(Billions of Dollars)

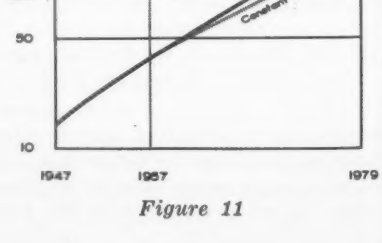


Figure 11

INVESTMENT PER KW
INVESTOR-OWNED
(Dollars)

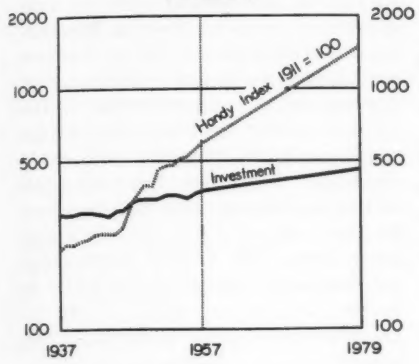


Figure 12

If we take this investment on the basis of 1957 constant dollars, it would be about $174 billion. You can see what the inflationary trend in the economy is likely to mean in electric plant investment — something over $40 billion in 22 years.

However, if we examine this investment in terms of cost per kw of capacity, it becomes apparent that the rise is much less rapid than the inflationary trend. (Figure 12)

The Handy-Whitman index line indicates the over-all cost of construction in the electric utility field. In it are the factors of higher labor and materials expenses. But, because we have been able to maintain a remarkable record of advances in the design and construction of new plant and equipment, particularly in the use of larger and larger generating units, the utilities, with the fine work of the manufacturers, have been able to keep the really important figure—cost per installed kw—from moving up at anywhere near the rate shown by over-all construction costs.

Cost Per Installed Kw

During 1957, the cost per installed kw for all electric plant, including generation, transmission and distribution facilities, was about $375 for the investor-owned companies. We believe that it will rise slowly in terms of current dollars, but at a far lower rate than the general inflationary trend.

A pair of dollar figures of great interest are electric revenues of the companies and the taxes they pay. (Figure 13)

Projecting revenues on a long-term basis shows that by 1979 they should be about $50 billion annually, over six times the 1957 record for $8 billion. It is estimated that these revenues will produce the return on investment needed to assure a continuing flow of capital for the expansion of electric supply facilities.

If the present rates of taxation continue, the amount of taxes paid annually by electric companies to local, state and Federal governments will reach an estimated total of nearly $12 billion in 1979, six times last year's figure of about $1.9 billion.

Our forecast for Light's Centennial is significant in a number of ways, not only for our industry but for the nation as a whole.

In the dry figures presented here are the flesh-and-blood of exciting accomplishments to come. These forecasts present an exhilarating prospect. This is the kind of big job that is the glory of the American free enterprise system, the kind of achievement no other system has been able to approach, and which, in fact, has brought leadership to America beyond that of any nation in world history.

Who, then, can be daunted by what we see ahead? Only those of little faith, only those who have always mistrusted the American system, only those who are incapable of understanding it.

For our own sake as a nation, as well as for those elsewhere in the world who may believe in us as a matter of principle, but who have little first-hand knowledge of America,

ELECTRIC REVENUES AND
TAXES, INVESTOR-OWNED
(Billions of Dollars)

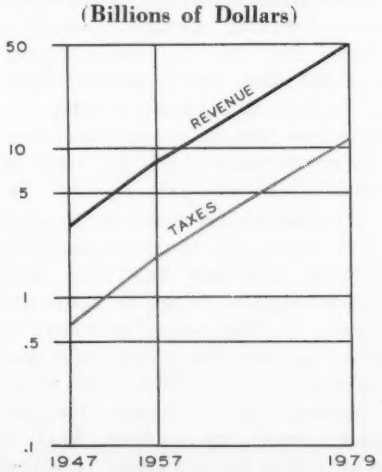


Figure 13

ELECTRICITY PER CAPITA

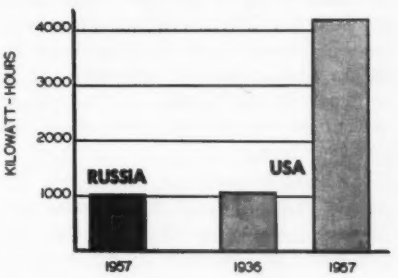


Figure 14

we should be extremely careful about crying "poor mouth" about our capabilities.

False modesty or actual misrepresentation of what we can do can seriously mislead others in the world who look to us for leadership, with potentially disastrous consequences.

We should not be afraid of realistic optimism, in the electric industry, or anywhere else in America, in the careful evaluation of our future.

The Russians seem determined to challenge this country's leadership. In any field in which they conclude their comparative strength offers a possibility of success, we can, I think, expect aggressive action to implement the challenge. In weapons, science and economics the Russians are showing great energy and will undoubtedly make some progress. Recently, they have been making a particular drive in the field of industrial production, commerce and world trade. In this category we have a big lead—both in standard of living and over-all productive capacity. In fact, we are probably as much as 20 years ahead. If we can maintain the qualities and products which have given us this wide margin of leadership, it is perfectly obvious we are capable of keeping our position.

In just one important area which has high significance both in personal standards of living and in over-all economic progress, Russia is 21 years behind. (Figure 14)

Russia's kwhr production per capita was 1,044 in 1957, slightly below the 1936 per capita figure for the United States, and only about one-quarter of the 4,223 kwhr for every American last year.

No one doubts that the Russians are determined people. It is clear that they are trained to a lower standard of living and that their rulers will

permit substantially less of over-all produce to go to civilian needs than we will do. The offsetting advantage to the United States is that we work in an atmosphere of freedom. It is a great incentive and to the extent we can protect and preserve it we will remain strong.

America promises a better life for people through freedom. Russia, too, holds out the promise of a better life for many in the world, but the Communists seek to conceal the mechanism for its achievement—slavery. Our society is basically one of freedom and abundance; the Soviet society one of slavery and scarcity.

But there are millions in the world today who live in such conditions of misery and ignorance that they cannot begin to imagine what the American standard of living really is, or how the free exercise of human ability could achieve it. To them the Russian system is more comprehensible, because they have always been dominated by one form of government or another, and the standard of living promised by the Russians seems both desirable and attainable.

World Problem of Misunderstanding

We have then a worldwide problem in misunderstanding which cannot be solved by the simple display of the dazzling fruits of our economic system. It will take patient explanation and careful use of terms to avoid increasing jealousy or hostility. And the problem is of great dimensions right here in the United States. How can we explain to the world how free men, in an atmosphere stimulating to their initiative and creative abilities, can produce more of all that is valued by mankind than any system run by government? How can we explain this to others—when so many Americans don't seem to understand it themselves?

Whether we like it or not, man is an economic animal. What he does, by and large, is reflected in economic terms. In Russia, where government operates the economy, it also operates the chief tool of production—man. And a man cannot be free under those conditions—even in his thinking. In the United States, men and women are free to determine what they shall do, and the government is instituted by them to maintain order and fair play. When you have freedom of action, freedom of thought, of imagination go with it—if, for no other reason than because you have to pick among many courses of action to which to devote your time and energy.

So, when government operates the economy and the industries which make it up, it is also operating the people and depriving them of freedom. Government operation of any industry, or any part of any industry, including electric power, inevitably starts the constriction and strangulation of human freedom, even though this may not have been the intention at the beginning.

RESIDENTIAL AND RURAL USE
TOTAL INDUSTRY
(Billions of Kwhr)

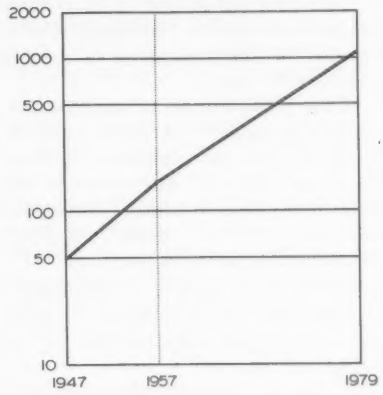


Figure 15

USA, USSR Living Conditions

Pointing up the difference between the two systems are living conditions here and in Russia. In the Soviet Union each person living in urban housing has an average of about 79 square feet of living space—equivalent to a room slightly smaller than 8 by 10 feet. In the United States each American has on the average about 370 square feet—nearly five times as much living space.

His freedom restricted in countless ways, even in his living quarters, the Russian consumer has very little choice in other things he needs and wants. In this nation, producers of goods and services devote effort and ingenuity to selling their wares to the consumer. But in Russia, the consumer must choose from what is offered that he can afford in either scantily stocked government stores or the black market—and neither is concerned with customer satisfaction.

So when we talk about selling electricity, we are dealing with an area of economic activity that the Russians know nothing about—their problem continues to be one of rationing. But a great deal of our attention is devoted to selling electricity and its applications to the consumer for use in the home. Right now the residential and rural category accounts for about 28 per cent of total United States kwhr sales. By Light's Centennial, residential and rural sales will rise to better than 35 per cent of the total estimated 3 trillion kwhr. (Figure 15)

In 1979, residential and rural use of electricity will be about 1.1 trillion kwhr, about seven times the 158 billion kwhr in 1957.

In developing this prediction, we have included the effects of adding about 1½ "phantom" appliances a year—new applications of electricity for the home which cannot now be foreseen but which will influence consumption. This reflects the rapidity with which new developments in electrical living come into being and are accepted by the American public.

Two Fields for Advances

But there are two fields in which applications of electricity could cause advances in use which would exceed what we can now predict. Light and heat—two fundamentals in civilized life—offer these major opportunities.

Electric house heating, one of the newer applications, is gaining in importance as a means of balancing the growing air conditioning load. When the customer begins to think of home *heating* as well as home cooling as a job for electricity, we will have opened the door to dramatic increases in our rate of growth.

Lighting, the load on which the industry was built, still has great potential. It has been pointed out that home lighting has been increasing at a much slower rate than kwhr sales for other services in spite of significant advances in the art of lighting. Proper development of these advances, according to a recent EEI report, could add more than 700 kwhr per customer to utility loads in the next 10 years. And load in the home lighting field has very desirable characteristics, with peak loads on many utility sys-

tems shifting from winter evenings to summer afternoons.

The use of electricity in large industry accounts for about half of the total of all power sales. In commercial establishments such as stores and offices, the proportion of total electricity sales approaches 20 per cent. (Figure 16)

By 1979, power purchased by industrial customers will total about 1.3 trillion kwhr, more than 4½ times the 283 billion kwhr used in 1957. Commercial use will be 533 billion kwhr, 5½ times last year's 95 billion total.

Increased Automation

Reflected in these dramatic figures will be increased automation in industrial processes and in office activities. A big factor will be the growth and creation of new industries and job opportunities. The most spectacular example of this in recent years is the electronics industry, whose principal growth has come about in the dozen years since World War II. In all of the enterprises making up this industry there are now about 1½ million jobs, and annual sales total more than $13 billion. It would have been difficult indeed to predict 20 years ago, on the basis of what was essentially the radio business, the tremendous development of the electronics industry. I am sure that there will be other industrial surprises of similar magnitude in the next two decades.

But of even more basic significance is what these kilowatthour figures will mean in terms of human progress. A shorter work week, more machines to take upon themselves more and more of human drudgery, and more time for people to develop as they will in the creative, spiritual, human aspects which produce the ultimate values—and which cannot be made by machine.

In helping to make this future prospect a rewarding reality for all people, the electric companies will continue to operate with increasing efficiency in producing an abundant and dependable power supply. The companies themselves will take full advantage of the technological advances their service makes possible. Automation, for example, will play an increasing role in the operation of constantly growing generating plants. Electronic computers will be used more and more widely to determine instantly what combination of plants in interconnected systems should be used to meet changing power needs most economically.

Generating units themselves are being built in larger and larger sizes, and transmission voltages continue to be increased. Development in these and other fields of power supply technology will make constant contributions to the efficiency and low cost of electric service.

Many of these advances combine to bring down the amount and cost of fuel required to generate a kwhr of electricity well below the levels of the past decades. But research and development in different types of fuels and their uses hold the promise of gains to come.

For example, it is now possible to extract valuable chemicals from coal, and use the remaining low-grade residue in a new type of furnace for the generation of electricity.

The use of atomic fuel has, of course, drawn the greatest public attention. But it will be a long time before electricity produced from nuclear fuels will be fully competitive with electricity produced from the so-called conventional "fossil" fuels — coal, oil and gas. The fossil fuels are not inexhaustible, however, and with the tremendous increases in energy needs expected over the years, there will come a time of growing reliance on uranium and other fissionable materials.

Economic Nuclear Power

So the electric utility companies, the electrical manufacturers, the new atomic industry and the U. S. Atomic Energy Commission are working now to bring about economic nuclear power for the benefit of all mankind.

Today, less than four years since Congress permitted industry to own and operate nuclear power plants, the electric companies are participating in 27 atomic power projects, including 15 nuclear power plants either in operation, under construction, or planned.

This expanding program, carried on in cooperation with the manufacturers and the Atomic Energy Commission, involves more than half-a-billion dollars of electric company funds.

INDUSTRIAL AND COMMERCIAL USE, TOTAL INDUSTRY

(Billions of Kwhr)

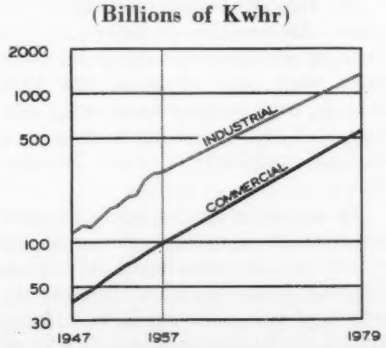


Figure 16

So Grows the Economy

As the electric industry grows in all its aspects, so do other sectors of the economy. So, too, does the American free market in its capacity to finance growth. We in the electric industry expect to raise the money for the plant and equipment making up tomorrow's industry in the free market, as has always been done in the past.

The financial sources of the nation will continue to expand, and will continue to look to the electric companies as good places in which to put money to work. Insurance companies, for example, with constantly increasing sums for investment, can be expected to keep on putting major proportions of their funds into electric company securities. The stock market in general, representing a variety of individual and corporate interests, will continue to see in the electric companies good opportunities for investing.

A key factor in the sound financing and expansion of the electric industry to serve the public well is good regulation. The intelligence and understanding of the regulatory commissions have in the past helped make possible America's electric power leadership today and will continue to assure it for the future.

This nation has been blessed with a high level of regulatory wisdom and sense of responsibility on the part of the various utility commissions. In fulfilling their basic mission of protecting customers from poor service and unfair charges, the commissions have also recognized the importance of assuring fair treatment for investors in the utilities. This is not only because investors make up a large part of the public themselves, but because good service depends upon investor willingness to supply funds to the utility for continued expansion of facilities and service.

CUMULATIVE TAXES PAID
(Billions of Dollars)

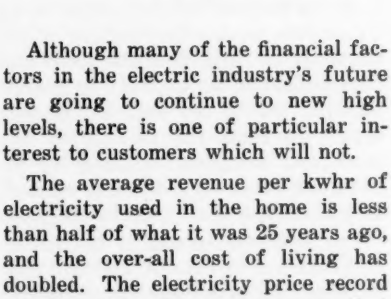


Figure 17

SENTIMENT FOR INVESTOR OWNERSHIP
(Per Cent)

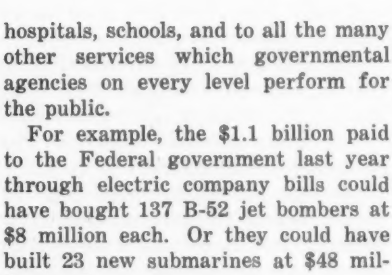


Figure 18

Although many of the financial factors in the electric industry's future are going to continue to new high levels, there is one of particular interest to customers which will not.

The average revenue per kwhr of electricity used in the home is less than half of what it was 25 years ago, and the over-all cost of living has doubled. The electricity price record stands out in sharp contrast to that of other goods and services. It has been achieved as a result of good regulation, gains in operating efficiency, careful watching of expenses, and the public's constantly increasing power consumption.

Of the total revenues received last year from customers by the electric companies for their service, 23 per cent—23 cents out of every dollar—went for taxes of all kinds, local, state and Federal. (Figure 17.)

Over the years, the tax payments turned over to government by the electric companies have mounted into astronomical sums. Since 1933, for example, about $19.7 billion in taxes have been paid. Between now and 1979, an additional sum of $122 billion in taxes will be collected through electric bills, for a total of more than $141 billion since the year that the tax-escaping TVA was established.

These huge amounts of money highlight the importance of the electric companies as a tax source in the entire economy. If, for any reason, these taxes had to be raised by some other means than through electric company bills, serious dislocations in other parts of the economy would result.

Through the payment of taxes, the electric companies contribute to the building of missiles, nuclear submarines and other weapons for defense, to government conservation activities, to hospitals, schools, and to all the many other services which governmental agencies on every level perform for the public.

For example, the $1.1 billion paid to the Federal government last year through electric company bills could have bought 137 B-52 jet bombers at $8 million each. Or they could have built 23 new submarines at $48 million each.

Federal Taxes

As a matter of fact, the electric company Federal taxes for just this one year could have covered the cost of all of the power-producing facilities of the entire Tennessee Valley Authority, with the exception of the $600 million plant investment allocated to serving the Atomic Energy Commission.

Incidentally, it is worth emphasizing that the plants of two specially organized groups of electric companies supply about half the AEC load in the TVA area. The rates charged AEC by these electric company groups are at the same level as those of TVA, but the companies are not exempt from any local, state, or Federal taxes.

320 High Schools

On the state and local level, the nearly $800 million in taxes paid last year by the electric companies could have been used to build 320 high schools, each costing about $2½ million, and each providing modern educational facilities for about 750 students.

There are, of course, many areas of government spending of tax money which can be considered very questionable, to say the least. Because the money of our customers is heavily involved, we have a responsibility to do what we can to help them keep their thinking straight on this vitally important matter of taxation.

For example, it seems unwise and unfair for governmentally operated power projects to sell electricity at a price which does not provide for taxes which are included in electric company bills. If those served by TVA and its municipal distributors had provided for Federal income taxes in their electric bills in fiscal 1957 on the same basis as the customers of electric companies do, $49 million would have been added to the U. S. Treasury.

Further, the 80 per cent of the people in the United States served by electric companies pay taxes through their bills to help make up for what is not collected from the 20 per cent served by various governmentally supported electric systems.

The equitable solution for this situation is to assure that all customers pay taxes in the same way through their electric bills no matter who serves them, whether electric companies, governmental agencies, or cooperatives.

It follows, too, that tax money should not be spent to build more government power projects. The investor-owned companies have constantly demonstrated their ability to meet all power requirements of whatever magnitude. Just as an indication, the 12½ million kw of new capacity scheduled for addition by the companies this year exceed by about one-third the total generating capacity of TVA. The companies which *pay* taxes instead of *draining* public tax resources are able to build each year the power equivalent of one TVA. Certainly there can be no need to add to the burdens of the taxpayer through the construction of more government power projects, when power supply requirements can be fully met by electric companies operating under the American free enterprise system.

It can be clearly demonstrated that the only course which should be taken by the power industry is that which embodies the American philosophy of freedom and which offers equitable tax treatment of all customers. Further, we lead the world in electricity supply because electric service was developed by enterprising organizations in an atmosphere of freedom. In other parts of the world where government has undertaken the operation of electric systems, achievement has been nowhere near as great.

As a logical matter, therefore, the question of so-called private vs. government power should not exist. The fact that it continues to be an issue indicates that far too many people are not aware of the facts or that they do not understand them. And a climate of good public understanding is essential to us in the electric industry, if we are to realize the full measure of what we see in the future for our customers, our investors, our employees—for all Americans.

A Hidden Factor

All of the forecasts we have made include a basic hidden factor which is crucial if the goals are to be met. That is, quite simply, acceptance and understanding by the people we serve.

It doesn't show anything like the accomplishment the curves for the other fields indicated. Yet this is what they all depend on, in the long run. We must move the curve of belief in free enterprise electric power supply up, among our employees and our customers. Making this curve take the right direction is no less a task for intelligence and hard work than progress in any other of the important areas of company policy and operation.

When we consider what people think, what their attitudes are, and how to get our own ideas across to them, we are not dealing in some occult art difficult to comprehend. Basically, we are involved in communications—and communicating with other people takes up more of everyone's thought and effort than just about anything else he does.

Not only does everyone have a certain natural aptitude in the field of communications, there have been developed techniques, practices, and tools to facilitate work in gaining acceptance and understanding, and they are available to all of us. But if they are to be effective, they have to be *used*—and used with people. This means in the communities we serve, because that is where our most important people are.

Some ideas on "how to do it" in public and employee relations will be presented. I hope that all of us take careful heed. The only reason our public acceptance curve is not up with the others is because we have neglected tending it in our own backyards.

Just to indicate what this can mean, a survey has pointed out that about 24 per cent of our own customers don't even know that they are served by an electric company. That means about 9 million of those we serve, without taking into account the ignorance of their families, which would bring the total to over 30 million people. So an investor-owned electric company does a good job in its community, and because of this ignorance, a *governmental* agency gets the credit! This is the kind of irony that can hurt.

Where would that curve showing customer sentiment for the companies be if the customers knew they received service from an electric company, not a governmental agency? Where would it be if electric company people had paid a friendly call on each of our customers and had told Mrs. Smith or Mr. Jones that they were being served by an electric company? That an electric company is an organization representative of the American way of productive enterprise, made possible by the investment of the savings of people like themselves? That it is operated by people like themselves who are constantly striving to provide their neighbors and friends with the best possible electric service? (Figure 18.)

This chart shows what the effect would be, if the 24 per cent were informed that they received their service from companies. Instead of 56 out of every 100 customers favoring investor-owned companies, the percentage would rise about 12 points, to 68 out of 100 in favor. And that's the difference between a simple plurality and a two-thirds majority.

There are enough people unsympathetic to us, with an awareness of the value of public opinion, who are doing their utmost to prevent us from offering facts about ourselves and the nation's electric power supply to the public. There's no reason why we should aid them by not even attempting to tell our story.

We are at the forefront of a struggle to defend two basic tenets of the American way of life—*free* speech, untaxed, not subject to censorship by governmental fiscal agencies or any other authority, and a *free* economy, not operated by government.

In the age-old and continuing struggle of man to keep free of the dehumanizing domination of government, we of the electric power industry have a unique position. The challenge today is greater than it has ever been and requires constant vigilance, intelligence and the willingness to act promptly against threats to freedom whenever and wherever they appear.

The ways to slavery are camouflaged in many guises. The naked use of force, chains and shackles are not the most effective techniques of would-be masters of mankind. These obvious methods inspire the will to resist among those not immediately subjected to them. Instead, economic methods are used; the granting of economic favors, or their withholding; the threat of deprivation, the lowering of status, or standard of living; the setting of one group or nation against another for material advantage. A government which has the power to make use of these methods anywhere in the world as certainly threatens men with ultimate slavery as does any horde of conquerors.

Vital Weapon

Electric power supply in a free economy is a vital weapon in today's worldwide battle to assure a future for all mankind in which the highest human qualities and values can endure and reach fulfillment. In our own society, power supply must continue to exemplify the freedom to exercise human abilities in which Americans believe, on which they have based their civilization. The challenge is clear before us, and we accept with vigorous determination our obligation in meeting it.

NEW Celebration

NATIONAL Electrical Week will be celebrated in 1959 during the week of Feb. 8-14, N. J. MacDonald, chairman of the NEW Committee has announced.

Mr. MacDonald, in reporting on the 1958 celebration, said 49 national advertisers participated in the activities last year. The advertiser participation next year is expected to be as great or greater than last year's.

Early this fall a new Planning Guide with a complete kit of materials —speeches, releases, home inspection reports and other program aids—will be ready for distribution to NEW participants.

EEI Plans New National Electrical Living Promotion Program

A NEW national sales promotion program for the electric industry aimed at increasing the home use of electricity will be spearheaded by the Edison Electric Institute, J. W. McAfee, retiring President of the Institute, has announced.

The idea of the new program was approved at a meeting of the Institute Board of Directors, held in conjunction with the opening in Boston of the 26th Annual EEI Convention.

"In leading this new electric industry activity, the Institute will sponsor and administer a basic, or core, program," Mr. McAfee said. "Manufacturers and trade allies are expected to cooperate by integrating their national advertising over their own names with this core program."

He said the EEI's core program will be financed on a voluntary basis by those Institute members which wish to participate, without any charge to the non-participating members.

1959 Target Date

T. O. McQuiston, chairman of the Institute's Commercial Division Executive Committee, said that 1959 was the target for getting the activity under way. Mr. McQuiston is vice president of Metropolitan Edison Co., Reading, Pa.

For some time the electric utility industry has been concerned about the need for a combined sales promotion effort at the national level, particularly to sell the electric way of living in the residential and farm markets, Mr. McQuiston said.

About a year and a half ago, a task force of 10 utility vice presidents representing various sections of the nation was appointed by the Institute's Commercial Division Executive Committee "to consider and suggest a policy which EEI might adopt for sponsoring an industry sales program to be conducted jointly with manufacturers and other interested segments of the industry."

George W. Ousler, vice president of Duquesne Light Co., Pittsburgh, was appointed Chairman. The recommendations of his task force were presented to the Division Executive Committee early this spring.

Fuller & Smith & Ross was retained as the advertising agency to develop a program.

In general, the new EEI core program is aimed at increasing residential use of electricity through the selling of more appliances, more and better home lighting, more wiring capacity, and by educating consumers about the advantages of electricity in the home.

The stimulation and support of electrical appliance dealers, distributors, manufacturers, and utility companies in their sales and promotion activities will be highly important to the new program, and will be achieved through a variety of merchandising plans and materials.

Pioneer Atomic Power Plant Wins Coffin Award for Duquesne Light

FOR its pioneering role in the development of the world's first full-scale nuclear power station devoted exclusively to peaceful purposes, the Duquesne Light Co. of Pittsburgh, Pa., was awarded the electric industry's highest symbol of achievement, the Charles A. Coffin Award, at the 26th Annual Convention of EEI.

Duquesne Light's participation in design and construction phases, and its operation, of the Shippingport Atomic Power Plant, Shippingport, Pa., were singled out by the Coffin Award Judges as the outstanding achievement of the electric light and power industry in 1957.

Duquesne Light was selected for the Award through a sequence of nominations by a panel representing every section of the nation, analysis of accomplishments of the nominated companies by a review committee, and decision by a Committee of Judges. Judges were Dr. John D. Ryder, Dean of Engineering, Michigan State University; C. W. Kellogg, Past President of EEI; and J. W. McAfee, President of EEI.

The judges, in the words of their citation, based their decision on the "initiative, farsightedness and courage" of Duquesne Light, "in its participation in the design and construction, and for its pioneering operation, of the world's first full scale nuclear power station devoted exclusively to peaceful purposes, at Shippingport, Pennsylvania, and for its overall contribution to the development of nuclear power."

The Shippingport Atomic Power Plant, located on the Ohio River about 25 miles northwest of Pittsburgh, has been in operation since last December. It can provide a minimum electrical output of 60,000 kilowatts, or enough to supply the residential needs of a quarter of a million people in the Pittsburgh area.

To aid in the development of atomic power, Shippingport was designed not only as a power station, but also as a test facility to provide experience and data for the entire industry. Construction began in March of 1955 and was substantially completed in the latter part of 1957.

The plant was built under supervision of the U. S. Atomic Energy Commission and the nuclear reactor was manufactured and installed by the Westinghouse Electric Corp. Duquesne Light in addition to substantial contribution toward the cost of the reactor, furnished the site, designed and constructed the electric generating part of the station and is operating the plant.

(*Continued on page* 222)

The Shape of Things to Come

By Ralph J. Cordiner

Chairman of the Board, General Electric Co.

An address before the Twenty-Sixth Annual Convention of the Edison Electric Institute, Boston, Mass., June 9, 1958

THE electric utility industry today is one of the most important sustaining and energizing forces in the economy of the United States. The sustained investments of the utilities in the recessions of 1949-50 and 1953-54 helped immeasurably in carrying the economy through those periods of adjustment, and the wisdom of your investments was justified by events. Today, as the nation passes through another period of uncertainty, the utility industry is once more a sustaining force, planning, investing, and building for the next great surge of national growth. Here indeed is private enterprise in its leadership role — realistic and farsighted, confident and mature.

RALPH J. CORDINER

GE, McAfee Estimates Close

I am happy to say that General Electric's estimates of the 20-year future are remarkably close to those set forth by Mr. McAfee. (See page 169.) The margin of difference, where there is a difference, is within 10 per cent. When one is looking ahead twenty years in a world of explosive change, that is not a significant variation.

A realistic evaluation of the data shows, as Mr. McAfee indicated, that the United States will need 665 million kilowatts of electric generating capacity by 1979, in contrast with this year's 135 million kw. It will take on the order of 3 trillion kilowatthours of electrical energy to power a nation whose population will have passed the quarter-billion mark.

In terms of courage, investment, and work, such goals are stupendous. It is indeed fortunate that both the manufacturing and the utility sectors of the electrical industry have such close agreement about the challenge of the future because—to repeat an ancient truth—neither of us can succeed without the other. Working together not only as customer and supplier, but as partners in one of man's greatest adventures, we can reach and surpass these high goals.

Such a statement of faith must not be mistaken for careless optimism. All the arithmetic that went into these computations may be correct, but that does not necessarily mean that they represent the shape of things to come. They are only goals —high, hard, but achievable goals. They can only be won by sustained effort, pursued courageously through good times and bad.

Decisions for Future

A less sophisticated audience might believe, as it heard these distant goals set forth, that this is the outline of work for the next business generation. But that is not the case. The main patterns of today's electrical industry were fundamentally determined by decisions made, battles won, funds invested, facilities built, and research launched 10 or 20 years ago. In the same manner, the most important decisions of today's executives are those that will not be proven until late in the 1960's and 1970's. The shape of things to come is being determined now—in the executive offices, in the laboratories, in the marketplaces, in the legislative halls, and in the minds and hearts of men.

Starting with this premise, my comments will be directed toward assessing trends in the laboratories, the marketplaces, and the legislative halls, to see what portents for the future they might present.

There would be little disagreement on the importance of the laboratories to the electrical future. Since its beginnings, the electrical industry has welcomed change and has invested millions of hard-earned profit dollars to bring it about. Today, the research and engineering activities of the electrical industry are a major factor in the nation's growth prospects.

Scientific Pace Increases

It is true that the pace of scientific advance is being stepped up enormously, and there are some who are concerned lest a sudden breakthrough might unexpectedly make major, long-term investments obsolete. There is no evidence to support such unrealistic concerns.

Consider the pace of progress in atomic fission, for example, which has been pressed forward by substantial expenditures from both private and government sources. The technical feasibility of power from atomic fission was proved by Dr. Fermi and his associates in 1942, with a laboratory reaction capable of producing a tiny amount of power. But to expand this tiny laboratory reaction up to a large-scale power plant capable of producing economical power has proved to be a long and expensive process. The important objective of economically feasible atomic power has not yet been reached, sixteen years after the Fermi demonstration.

In the 3½ years since the passage of the 1954 Atomic Energy Act, industry has moved effectively toward establishing a base in development,

design, manufacture, and use of power reactors. Now the industry effort is moving into a new era—one in which operating experience, meager as it is, can be analyzed. The results, based on five pioneer reactors now operating in the United States, are encouraging.

Fission in the 1970's

Currently, there are four large atomic power stations under construction in the United States, scheduled for completion in 1960. Thus, the experience gathered in the 1960's should make fission an economical supplement to fossil fuels, on a substantial scale, in the 1970's.

With this perspective, what is the probable timetable for fusion power? It has yet to be proved that fusion power is technically feasible. To pass this significant milestone is the objective of tremendous research and development efforts in the period immediately ahead. From General Electric's studies, it appears that the late 1970's may find the first demonstration power plants of fusion power going into operation, just as the first fission plants are going into operation now. Thus, economical fusion power on a substantial scale would not be likely to make its appearance before the final two decades of this century.

Fission and fusion are undoubtedly the two principal long-term prospects for basic change in the technology of the utility industry. There are, however, many other technical possibilities which are being explored in the electrical laboratories, and which may be having appreciable effects in the year 1979. If time permitted, it would be interesting to explore the challenges presented by superconductivity, the fuel cell, semi-conductor converters of various kinds, the thermionic power converter, and the need for new methods of storing electrical energy. Solar energy has some genuine possibilities on a special-application basis.

Long-Range Laboratory Efforts

The long-range efforts in the laboratories can be summed up with these few conclusions:

1. The two most promising prospects, fission and fusion power, become more efficient and economical as the size of the power plant increases. That is to say, the so-called "home atomic battery" is not likely to replace the central power plant.

2. New ways of doing things in the electrical industry are nevertheless inevitable and necessary, and research and development are proceeding on a scale never before imagined.

3. Nothing on the technological horizon gives promise of replacing rotating machinery for generating electricity economically—not on a big scale or in the near future. Therefore the lookout for developments in turbine-generator technology is an important factor in planning for the immediate future.

During the past half century, research and engineering have combined to produce turbine-generator systems that, on the average, use only about one-eighth as much coal per kwhr as did those first turbines which edged reciprocating steam engines right out of the picture. These improvements, toward which the entire electrical industry has contributed, have made electricity the American consumer's biggest bargain.

Over these 50 years, the reduction in fuel consumption per kwhr has averaged about 3 per cent a year, compounded annually. During the period 1950 to 1955, the rate of improvement rose to a remarkable 5 per cent a year, due mainly to a rapid increase in the average temperature, pressure, and size of units installed. Technically, however, it appears that genuine limits are being reached in what can be done with the available metals. Until some basic new knowledge is discovered, it appears that the increments of improvement in turbine-generator technology may be considerably smaller in the years ahead for those utilities that are already operating the largest-size machines. The company's scientists and engineers estimate that a reduction in fuel consumption per kwhr of perhaps one to one and one-half per cent a year is the best that can be expected in the next 10 years, on the average.

There are, of course, many utility companies which still have the opportunity of making rapid progress by installing the larger machines already available, and turbine-generators rated from 500,000 to 750,000 kw will come into use in the 1960's. Increased interconnection and the trend to joint purchase and use of high-capacity machines, by several companies, will produce further advances in system economy.

Dangers of Inflation

On a nationwide basis, however, the advances in generating efficiency are not going to be enough to offset the inflation in your production costs, to anything like the degree that has existed in recent years. This leads to two clear conclusions:

1. Unless the basic inflationary trend is halted, the health of your business and our business — indeed, the health of the nation's economy—may depend on winning public understanding of the need for a realistic reappraisal of the appropriate selling price for electricity.

2. As never before, the electrical industry must assure tomorrow's progress by continuing its vigorous exploration of scientific opportunity and exploitation of technological gains.

I have emphasized the production of electricity, but the laboratories are also exploring many new ways to distribute and use electricity. In the factory, in commerce, in the home, and on the farm, the emphasis in the coming decades will be toward more automatic equipment; toward the more imaginative and economical use of electronics; toward bigger blocks of power, with homes using the equivalent of today's small industrial and commercial establishments; and toward higher-voltage, higher-capacity transmission systems.

One of the most exciting projects in the electrical field is General Electric's newly announced extra-high voltage project — an experimental high-voltage transmission line to be built not far from the company's High Voltage Laboratory in Pittsfield, Mass. This three-phase transmission line, over four miles long, will have a rated system voltage of 650,000 volts, suitable for operation up to 750,000 volts.

Highest Voltage Lines

As you will recognize, this is a considerable advance over the highest previous voltage of American or foreign experimental lines. Knowledge and experience gained with the extra high-voltage project in the

1960's will lay a foundation for the operating transmission systems of the 1970's. To assure that this project will be of maximum value to the industry, we have approached the Edison Electric Institute to ask its cooperation in planning this work.

From this brief review of the prospects in the laboratories, it is clear that new knowledge, new products, and new processes are going to be essential to achieve the growth envisioned in Mr. McAfee's forecasts. These technical challenges can be met as long as the manufacturers which provide most of the industry's research and development have the volume and profit levels required to warrant—indeed, to stimulate—continued investment in scientific advance. One sometimes hears that the leading manufacturers expect a premium price in order to pay the cost of research. Actually, they can continue to offer their products at attractive prices, as they do now, and continue their research and development, as long as they have the volume of business required to keep production well above the break-even point. Such volume, on a steady basis, should enable them to earn the level of profits required to sustain their assault on the technical barriers of the future.

But the future is being determined not only in the laboratories. It is also being shaped in the marketplace.

The character of the market is going to change dramatically in the next 20 years, and will offer new opportunities for everyone associated with the electrical industry. Rising levels of income and education, along with the sharp increase in household formation in the 1960's, will mean a bigger, higher quality market for residential uses of electricity.

The United States population is trending toward the formation of what might be called "supercities," as the suburbs of neighboring cities spread out and overlap into continuous urban areas hundreds of miles long. New industrial and residential areas will evolve along the great thruways that are being built on a national scale. All these new population centers will need large quantities of power for community facilities such as water and sewage plants, highway and street lighting, schools and shopping centers. Highly concentrated blocks of power will be required for new industrial parks and residential areas. The development of bigger industrial and residential markets in areas formerly confined to agriculture and mining, especially in the South and the West, will provide new outlets for industrial, commercial, and residential load. In such a vastly expanded market, the forecast of 3 trillion kwhr a year by 1979 is entirely feasible.

Every Kwhr Must Be Sold

Yet no business manager needs to be reminded that every kwhr, every dollar's worth of power and equipment, must be sold—sold against a growing multitude of competing uses for the customer's dollar.

Between now and 1979, the industry must sell about $500 billion worth of electricity and 1¼ trillion dollars worth of electrical equipment, in terms of today's prices, to reach the goals envisioned. This is about five times as much electricity and four times as much equipment as the industry has sold from 1879 to the present.

Is it reasonable to assume, from the present evidence, that this sales objective will be attained? Let me cite some of the evidence.

It is generally agreed that the residential customer is the backbone of the utility business, the least affected by economic recession and potentially the greatest producer of revenue. At present, major appliances and television account for two-thirds of the kwhr consumption of the average residential customer. Residential and rural power sales have increased faster than the other classifications, and forecasts of future load are based on a continuation of that trend.

Optimism Unwarranted

There is nothing in the current sales trend of the electric major appliance business to warrant such optimism. There has been little growth in unit sales since 1950. Ignoring wide swings in year-to-year sales volume—and who is to say what constitutes a "normal" year—the appliance and television receiver business seems to be growing at a rate of less than 3 per cent a year. Yet major appliances are expected to be a major factor in boosting the load curve an average of 8 per cent a year, according to the 1979 forecasts that have been presented.

Why is it that sales of home appliances have not grown at the rate they should? Is there some vital ingredient missing from the manufacturers' program? Is there something more that the electric utilities should be doing, to close the gap between market potential and market reality?

A review of the efforts of the manufacturers seems to indicate that, while there have been human errors and shortcomings, they have tried to move forward on many fronts.

In the past 10 years, the manufacturers have offered their customers a greater flood of new, exciting products and features than in any previous period. New appliances and entertainment products have been introduced, styling has become much more attractive, and inducements to purchase a coordinated group of appliances, rather than just one appliance, have been increased.

Factories have been rebuilt and expanded, and a high degree of electrification and automation has been introduced into the manufacturing processes, to produce the most attractive values.

The industry's productive capacity has been increased so that customers can benefit from the economies of volume production — providing that high volume can be maintained. At present, it appears that the industry has the capacity to produce more than twice as many appliances as are currently being sold.

Distribution patterns are changing. As these changes proceed on an evolutionary basis, the cost of moving goods from the factory to the ultimate consumer, along with the services the customer wants, is being reduced.

Manufacturers' advertising of appliances and television receivers has been increased to five times the prewar level.

The sales efforts of manufacturers have been both expanded and improved in terms of specialization.

Liberalized credit arrangements have made it much easier for the customer to buy and pay for these useful home products and services.

While the housewife has found higher and higher price tags on nearly everything she buys in recent years, the prices of electric appliances have actually declined. For

example, the 12-inch television set of 1950 cost $230, while today's 17-inch set, a better product all around, costs only $180. The eight-cubic-foot refrigerator of 1950 cost $330, while the equivalent model of today's 12-cubic-foot combination refrigerator and freezer, with many new features, sells for less than $300.

Index Up, Appliance Cost Down

A study of the components of the government's cost-of-living index reveals that, while the general cost of living has risen 26 per cent since 1947, the prices of major appliances* have actually declined 14 per cent. These declines in prices have taken place in spite of a 63 per cent increase in the cost of labor in electrical manufacturing, and a 50 per cent increase in the cost of key raw materials. The prices have declined in spite of the fact that today's appliances have many improvements which greatly increase their real value to the customer. I am making the understatement of the year when I say that no sales force in industry has a better value to offer the consumer than the people who sell electrical appliances.

Thus, the appliance manufacturers have tried to meet the challenge of the marketplace with better products, larger and more efficient facilities, lower-cost distribution, sharply increased advertising and sales effort, liberalized credit, bargain prices, and—in the process—sharply reduced profits. Yet unit sales in 1957—a year of record levels of economic activity—were at levels disappointingly below 1956 or 1955 volume. The eight-year average growth rate of 3 per cent a year will not be enough to enable either the electrical manufacturers or the electric utilities to achieve their goals for the years ahead.

Frankly, this is a call for reinforcements. The manufacturers will intensify their efforts, but even their most strenuous efforts cannot be enough. Both manufacturers and utilities must build up their sales and advertising efforts in this field, and take whatever other imaginative steps are necessary, to persuade residential customers that there is no better investment they could make than to "live better—electrically."

Electric utilities, whose advertising and sales expenditures in the postwar years have dropped to 1.6 per cent of gross revenues, might well consider the advantages of restoring the pre-war expenditures of 2.5 per cent to 3 per cent of gross revenues; and in many companies even higher percentages are justified by the opportunities. In view of the rapidly increasing number of competing uses for the consumer's dollars, such advertising and sales expenditures would represent a prudent management investment by an industry that aims to grow about twice as fast as the economy as a whole.

I would be less than candid, however, if I gave the impression that I consider undersized advertising budgets as the only obstacles to residential load growth. The most important single obstacle to the achievement of the industry's residential load objectives is the aggressive competition of the gas industry.

It is obvious that the gas industry has developed a tremendous momentum in recent years, and the electrical industry will have to put forth a tremendous new sales drive to compete with it successfully.

Choice Between Electricity, Gas

The utilities who offer both gas and electric service have a special responsibility to see that their customers truly have a free and fair choice between electricity and gas. For example, if the utility offers special inducements such as free installation or free service to its gas customers, the customers for electricity should be offered the same special advantages. In such fair competition, the electrical industry has nothing to fear—particularly if it vigorously promotes its natural advantages.

But if the electrical industry expects to coast along at its present pace in advertising and sales promotion, it is to be questioned whether our mutual objectives in electrical load can be realized. Such goals can only be achieved by selling the concept of all-electric living to the vast majority of the residential customers.

I have pointed out the sales challenge in the residential area because it is a critical point that needs concentrated management attention, but a similar challenge can be found in the industrial, commercial, and rural markets.

Extra Marketing Effort Needed

Some may question whether it is appropriate to speak of increased expenditures for marketing, and continued investments in capital improvement and expansion, during the recessionary swings of the business cycle. It is my opinion that these are precisely the times when an extra marketing effort pays off best, and when capital improvements and expansion can be carried forward at the most favorable prices.

General Electric's "Operation Upturn," for example, is a company-wide effort to build sales and jobs not only through increased marketing effort, but through the efforts of every employee, every supplier, dealer and distributor — to deliver better values and better service to our customers. Such a program now will not only help to stimulate the economy, but should help to build long-term momentum in electrical industry sales; and here I refer to both the load curve and the curve of equipment sales. Other electrical manufacturers are also undertaking sales and job building programs, and utilities are tying in with both the manufacturer efforts and the local community efforts to stimulate renewed business activity. If these programs are carried through successfully, and the real gains are then consolidated and pressed forward, this industry will actually emerge from the present recession stronger than ever.

It is times like the present that separate the truly enterprising industries from those that simply float along in the national stream of economic activity. To reach the industry's high goals, it is mandatory that both manufacturers and utilities demonstrate their spirit of enterprise more aggressively at the marketplace.

A third critical area in which the future is being shaped now is in the halls of Congress and in the state legislatures, and wherever the political climate of the future is taking form.

* i.e., the models used in computing the cost-of-living index.

Solving the technical, marketing, and other familiar business problems of the electrical industry will not alone assure a bright future. Political conditions could so restrict the vigor of the business enterprise system that the national economy would never reach its magnificent potential in 1979. The shape of things to come 10 and 20 years from now is being determined by political decisions on such current issues as these:

Shall the government attempt to cure the present recession by massive doses of inflation? Are illusory tax cuts and wasteful spending programs really the best route to a sound resumption of the national advance?

Will the present recessionary swing of the business cycle be used as an excuse to funnel an even larger proportion of the nation's economic activities through the central government? Is it not enough that one-fifth of the gross national product is produced for government, and that one-quarter of the income of the people is taken in taxes?

Will atomic energy provide a second chance for those who want to see investor-owned electric utilities wither away, replaced by federal power plants?

Will the present tax system, which penalizes success and frustrates initiative, eventually manage to stunt and cripple the American business system?

Will monopoly union power be allowed to run its selfish course uncontrolled, poisoning the economy with inflation, special privilege, coercion, and restrictions on productivity and initiative?

Search for the Right Answers

The people's representatives in Congress, in the capitol buildings, in the state legislatures, in the city hall and the county court house, are trying to come up with answers to these questions. Their answers are determined not only by their judgment as to what is the right course, but also by what they feel is required to keep them in office.

It is important that their answers be based on what truly represents the balanced best interests of all citizens, and not the interests of special-interest blocs. Consider the political activities of just one special-interest bloc, for example.

The labor unions this year will be expanding both the scale and the variety of their political efforts along highly practical lines. They will have card files on voters and even bigger files on the candidates; they will have doorbell ringing and coffee hours in behalf of favored candidates; registration drives, followed by election-day telephone reminders; even rides to the polls and baby sitters for voting housewives.

Unions Support Big Government

Now the people who run the unions have every right to try to build support for their political views. While there may be raised eyebrows at some of their techniques of using union machinery to provide political funds and manpower, the opportunity they are embracing is generally within the traditional bounds of American political action. The real issue here is whether any special-interest group should achieve such tremendous political power that it produces a serious imbalance in the nation's political structure, so that the public interest is forced to bow before a special interest. This time it just happens to be those union officials who support a program of big government, big taxes, and increasing government encroachment on business. The future demands less special-interest politics and more politicking in behalf of all the people.

The political challenge from forces hostile to business may outweigh any others in determining the political climate of the 1960's and the 1970's. It must be met by an equally determined, equally practical, and equally well mounted effort on the part of those who hold that the whole public interest will best be served by encouragement of business enterprise and individual freedom, and not by the growth of big government.

Consider the challenge offered by atomic energy, for example. Here is a development that will have profound effects on the future of the electrical industry and the national economy. In 1959, the Congress will undoubtedly rewrite the Atomic Energy Act of 1954. It is reasonable to assume that whatever enabling legislation emerges will establish the ground rules for the development of atomic energy for years to come.

This is why, in the public interest, it is essential that the spokesmen for industry agree on proper goals and methods for the development of atomic energy within the framework of this country's traditional economic system. As you know, the industry is now presenting many contradictory positions.

We in General Electric are eager to do our share toward the development of a constructive long-range policy that is founded firmly on the national interest. We do not pretend to have a ready-made answer to the many questions involved, but perhaps it would be helpful if we could serve as a catalyst, to bring forth the best thinking of the industry on this important subject.

At the suggestion of many utility executives, General Electric has announced a Third Utility Executives' Conference at Woodside, Calif., on the pattern of the Utility Conferences the company conducted in 1950 and 1954.

Because of the urgency of the atomic power issue, General Electric is willing to extend this conference for a thorough exchange of ideas on the nation's atomic energy policy. For this portion of the conference, invitations would also be extended to the executives of the other manufacturers of atomic power reactors. The delegates will have an opportunity to hear and discuss papers on the technical, economic, and political problems of atomic energy. It is hoped that an industry-wide conference, in this setting of investor-owned atomic energy facilities, will help to develop a common vision for the electrical industry as it moves toward the atomic era.

Effects of Atomic Energy

Atomic energy is only one of many issues that have great economic and political significance for the business community and the public it serves.

In the past, the businessman may have felt that such political matters were not part of his regular assignment. They are now.

As a manager, the businessman must see that everyone associated with the business — customer, em-

(*Continued on page* 232)

Atomic Power: Today's Challenge— and Opportunity

By Elmer L. Lindseth

President, The Cleveland Electric Illuminating Co., and Chairman, EEI Atomic Power Committee

An address before the Twenty-Sixth Annual Convention of the Edison Electric Institute, Boston, Mass., June 9, 1958

THE other week a booklet was published entitled *Introduction To Outer Space.*

Twenty years ago, a booklet with that title would have borne the imprint of a science fiction publishing house. But this one showed as its publisher "The White House, Washington, D. C." It carried an introduction by the President of the United States.

And TV in Bangkok

Today there are satellites on the edge of space; submarines powered and homes lighted by nuclear fission; computers solving problems for business and industry; radar in daily commercial use; and people watching television in Bangkok, Murmansk, and Reykjavik.

Not one of these phenomena was happening 20 years ago. Yet, startling as those changes are, they are a mere foretaste of what will almost certainly happen during the next 20 years. For the rate of change is continuing — possibly even accelerating.

In this onrushing current of events, two overriding realities stand out: the split world and the split atom. All of us in this room are especially affected by these two realities.

Effects of Split World

The split world affects us because the very nature of our business makes us more than usually concerned as citizens with the political, ideological, and international problems of the day.

The split atom affects us not only because of its basic technological importance to our industry, but because it is one of the root causes of some of those international problems. The atom, even in its peaceful uses, has become an instrument of world rivalry, a peg on which to hang national prestige.

ELMER L. LINDSETH

There are some in this country who have looked at Russia's recent scientific achievements — admittedly impressive—and have concluded that our country has dropped into second place as a technological nation. America's atomic energy program, in particular, has been singled out for special criticism.

After a look at the record, how justified is this criticism?

One in a position to know who considers it totally unjustified is Dr. Willard F. Libby, scientific member of the Atomic Energy Commission. "America," he stated recently, "holds an absolutely commanding position" in the world-wide field of nuclear development.

That view was reinforced in a report from the so-called "Three Wise Men" of Euratom, the nuclear federation of six European countries. These European experts, after a world-wide study of atomic developments, stated: "An impressive amount of research and development done both through the AEC and private industry has provided America with the most complete nuclear foundation in the world."

As of the end of 1957, the total number of American nuclear reactors was 237. That figure includes reactors for all purposes—electric power, propulsion, testing, research, production and training; reactors either completed, under construction, or in the planning stage.

Leads the World

Eighty-eight of those—again as at year-end 1957—were power reactors, either for propulsion or for electrical generation. Admiral Lewis L. Strauss, chairman of the AEC, has said, "This total of 88 power reactors represents a program which, to our knowledge, is not approached by any other country, either in performance or planning."

In nuclear development for naval propulsion, America's pre-eminent position is universally conceded. However, the kind of power reactor that more directly concerns us — and the kind that seems to stand for atomic prestige in the minds of many—is the one designed to produce electricity in a civilian power plant. How does America stand in civilian power?

From 1954 Onward

Our industry's progress with atomic power dates from 1954, when the Congress passed the Atomic Energy Act which first allowed us to build and own facilities for civilian development of nuclear power. The Act stated, you will remember, that, "It is . . . declared to be the policy of the United States that . . . the development, use, and control of atomic energy shall be directed so as to promote world peace, improve the general welfare, increase the standard of living, and strengthen free competition in private enterprise."

TABLE I—ELECTRIC UTILITY COMPANY PARTICIPATION IN NUCLEAR POWER DEVELOPMENT
PLANTS IN OPERATION, MAY 1, 1958

Name of Participating Utility Co. and Plant	*Type of Reactor*	*Electrical Capacity of Plant—Kwe*	*Owner of Reactor*	*Operator of Reactor*	*Estimated Cost to Utility Organization*	*In Operation*
(1) Duquesne Light Co. (Shippingport)	Pressurized Water	60,000 (*a*)	AEC	Duquesne Light Co.	$23,300,000 (*b*)	Dec., 1957
(2) Pacific Gas & Electric Co. (Vallecitos)	Boiling Water	5,000	General Electric Co.	General Electric Co.	572,000 (*c*)	Oct., 1957
(3) Southern California Edison Co. (Santa Susana)	Sodium Graphite	6,500	AEC	Atomics Internat'l	1,500,000 (*c*)	July, 1957

(*a*) Initial capacity; ultimate of 100,000 Kw expected.
(*b*) Includes 18.3 million for the conventional portion of the plant and the site, and $5 million toward cost of reactor.
(*c*) For turbo-generator postion.

That was less than four years ago. Since that date the industry has launched a comprehensive program embracing research, development, and construction of both prototype and large-scale plants, covering a wide range of reactor types. In this program, we have had the invaluable cooperation and participation of equipment manufacturers, other American industries, the Congress, and the Atomic Energy Commission.

Fifteen projects producing civilian nuclear power have been announced. These embrace seven different types of reactors. In 12 of the 15 projects, involving six of the seven reactor types, the reactors are owned by the utilities concerned.

Three of these projects are in operation today producing power being utilized on investor-owned systems. The reactors in two of these three plants are owned by the AEC; the third, by General Electric Co.

Another six are under construction or are contracted for, while the remaining six are in the planning or development stages.

In addition, there are 12 more research, development, and study projects under way, some of which will no doubt lead to the construction of additional plants. That brings the total to 27 nuclear projects, in which 123 utility companies are participating.

This certainly shows that America's investor-owned electric utilities are embarked on a nuclear power program without counterpart anywhere in the world.

$520 Million Program

By the end of this year, the industry will have spent about $140 million on this program. Next year the investment will be increased by another $100 million. All told, projects currently under way add up to more than $520 million, and look toward nuclear generating capacity of one and a half million kilowatts.

These are impressive figures. However, the real value of this country's nuclear power program cannot be measured in dollars or in kilowatts. Other countries—Britain and Russia, for example—can also point to substantial investment and electrical output. But their programs are different in nature from ours. For one thing, they are entirely government programs. For another, and more significant perhaps, they are quantity-oriented. That is, they are aimed at producing power in large amounts by whatever atomic method has proven feasible today, no matter whether that method offers ultimate promise for the future or not.

We in America don't need atomic kilowatts right now. We can produce all the power we can use more cheaply with conventional fuels, which we have, and which most other countries do not have.

Thus our program can be quality-oriented, rather than quantity-oriented. And so, by concentrating on research and development of a variety of reactor types, we have built up a broad-based, diversified nuclear power program—one that will yield richer dividends of information, know-how, and experience than will a program dedicated to kilowatts alone.

So much for the record. What about the future?

Our immediate goal, of course,

TABLE II—ELECTRIC UTILITY COMPANY PARTICIPATION IN NUCLEAR POWER DEVELOPMENT
PLANTS UNDER CONSTRUCTION OR CONTRACT, MAY 1, 1958

Name of Organization Name of Plant	*Type of Reactor*	*Electrical Capacity of Plant—Kwe*	*Location*	*Estimated Cost to Utility Organization*	*In Operation By*
(1) Commonwealth Edison Co.—Nuclear Pwr. Group, Inc. (Dresden)	Dual Cycle Boiling Water	180,000	Joliet, Ill.	$51,000,000	1960
(2) PRDC-Detroit Edison Co. (Enrico Fermi)	Fast Breeder	100,000	Monroe, Mich.	67,146,000	1960
(3) Consolidated Edison Co. of N. Y., Inc. (Indian Point)	Pressurized Water Thorium-Uranium	275,000	Indian Point, N. Y.	90,000,000	1960
(4) Yankee Atomic Electric Co. (Yankee)	Pressurized Water—stainless steel clad fuel elements	134,000	Rowe, Mass.	57,000,000	1960
(5) Northern States Power Co.—Central Utilities Atomic Power Associates (Pathfinder)	Controlled recirculation boiling water	66,000	Sioux Falls, So. Dakota	28,800,000 (*a*)	1962
(6) Pacific Gas & Electric Co. (Humboldt Bay)	Advanced Boiling Water	50,000 (*b*)	Eureka, Calif.	20,000,000	1962

(*a*) Estimated total cost of project including $6,000,000 research and development contribution by AEC.
(*b*) Guaranteed. 60,000 Kw expected.

TABLE III—ELECTRIC UTILITY COMPANY PARTICIPATION IN NUCLEAR POWER DEVELOPMENT PLANTS IN VARIOUS PLANNING STAGES, MAY 1, 1958

Name of Organization	*Type of Reactor*	*Electrical Capacity of Plant—Kwe*	*Location*	*Estimated Cost to Utility Organization (a)*	*In Operation By*
(1) Carolinas Virginia Nuclear Power Assoc.	Heavy Water Moderated and Cooled	17,000	Parr Shoals, S. C.	$22,000,000	1962
(2) East Central Nuclear Group—Florida West Coast Nuclear Group	Gas Cooled, Heavy Water Moderated	50,000	Florida West Coast Area	34,898,000	1963
(3) General Public Utilities Corp.	Water	10,000	Saxton, Pa.	8,000,000	—
(4) New England Electric System	Not yet selected	200,000	New England	—	1964
(5) Pacific Gas and Electric Co.	Not yet selected	200,000	California	—	—
(6) Pennsylvania Power and Light Co., Westinghouse	Aqueous Homogeneous	70,000–150,000	Central Eastern Pennsylvania	62,500,000 (b)	1963

(a) Exclusive of excess operating costs. Includes research, development and construction costs to be borne by organizations concerned.
(b) Based on 150,000-kw reactor. Does not include excess operating costs.

must be to make nuclear power economically competitive. It has already been established as practical and safe. The next step is to take it out of the laboratory and put it in the marketplace.

An excellent picture of our atomic energy research and development program is provided in the report: "Status and Prospects of Nuclear Power," published in February by the Technical Appraisal Task Force on Nuclear Power of the EEI. To those of you who have not read it, I would like to say it is a fine review of our industry's nuclear power program, coupled with an appraisal of future needs, and with emphasis on the problem of competitive costs. For this report the industry owes a debt of gratitude to the members of the Task Force, and especially to its non-industry members and to its chairman, James F. Fairman.

The report sums up the picture this way: "The Task Force believes that it is not possible to identify the type of reactor which is most likely to be successful. The Task Force recommends further research and development along a variety of lines and construction of additional reactors ranging in size from experimental units to full-scale power producers as warranted by advances in the art."

There in a nutshell is our immediate task. We must not only continue, but expand, our research and development activities over a broad front in order to achieve our goal of competitive nuclear power in reasonable time. Moreover, we must face the fact that bringing the cost of nuclear power down to a competitive level will demand very substantial expenditures of manpower, effort, and money from the industry, and a good deal of assistance, financial and otherwise, from the government.

The Atomic Industrial Forum in January of this year foresaw 6 million kilowatts of nuclear power capacity in the U. S. in 1968—10 years hence — providing economically competitive nuclear power is achieved by 1964.

The McKinney Panel in January, 1956, predicted nuclear capacity of from five to nine million kilowatts in 1970. By 1975, if predictions of total output are reached, the proportion of that output generated in nuclear plants, they said, may be somewhere between 5 and 15 per cent.

Sporn Looks to 1975

On April 1 of this year Philip Sporn predicted that by 1975, five per cent of our total installed capacity may well be atomic. And since nuclear plants can be expected to have a high load factor, that five per cent may be supplying as much as 7½ per cent of the kilowatthours generated.

Predictions as to the time of reaching specific amounts of nuclear kilowatthour output are of necessity uncertain. But one important fact can be predicted without hedging or reservation: nuclear power is going to come, and in large amounts. Twenty years from now, it will definitely be here. And it will have significant effects on the American electric power industry. Of this you may be sure. For never before in the history of our industry has a technological development portended such far-reaching economic, social, and political impacts.

How completely are we prepared to meet the impacts that fully competitive nuclear power will bring? By "fully" competitive I mean nuclear power competitive with fossil fuels in all parts of the country, including today's lowest fuel cost areas.

How comprehensive are our plans —those of us who have spent our working lives in this business and to whom the public may rightfully look for guidance and leadership? How well have we analyzed all the impacts this new development will have on our own companies? On our industry? On the economic and industrial geography of the nation?

Let's examine some of these impacts.

First of these impacts is *public reaction.* The concept of atomic power has caught the public imagination, and in so doing it has led to a great deal of confusion. A number of fallacies have gained widespread currency; many people today believe things which just aren't so.

One common fallacy is the belief that nuclear power will someday be as "free as the air"—be "too cheap to meter." It is amazing how many people fail to realize that even if nuclear plants could be built for nothing, even if nuclear fuels were free, it would still cost money to provide electric service.

Another fallacy is the belief that abundant cheap nuclear power is "just around the corner." We do have nuclear power in America. But why doesn't *everyone* in America have it? What's the holdup? This fallacy, like the previous one, stems from failure to understand the cost story.

There is also the fallacy that the government could do a better job of

TABLE IV—ELECTRIC UTILITY COMPANY PARTICIPATION IN NUCLEAR POWER DEVELOPMENT
STUDY, RESEARCH AND DEVELOPMENT PROJECTS

Name of Organization	*Type of Project*	*Type of Reactor If Applicable*	*Comments*
(1) American Nuclear Power Associates	Study and Planning	Helium-cooled, uranium-bismuth fueled	Group was formed in November 1957. Composed of 1 electric utility company and 4 industrial and engineering firms, it is conducting studies looking to development of a prototype reactor.
(2) Atomic Power Development Associates	Study, Research, Development and Testing	Fast Breeder	Group was formed in 1954. Composed today of 31 electric utility companies and 12 industrial and engineering firms, it is conducting research, development and testing associated with the Enrico Fermi plant (see Table II, item 2) and studying advanced breeder concepts.
(3) Atomic Power Engineering Group	Study	Not applicable	This group, composed of 13 electric utility companies and 2 engineering firms, was formed in 1955. It is conducting studies of the technical characteristics, operating problems and suitability for application to power systems of various reactor designs.
(4) East Central Nuclear Group	Study	Not applicable	This group, formed in early 1957 and composed today of 14 electric utility companies, has considered a variety of other nuclear reactor concepts in addition to the advanced gas cooled heavy water moderated reactor it is developing with Florida West Coast Nuclear Gp. (see Table III, item 2). East Central Nuclear Gp. has also participated with Nuclear Development Corp. of America in a feasibility study of the possibilities of using steam as a reactor coolant.
(5) Minnesota Nuclear Operations Group	Study and Planning	Not applicable	This group, composed of 2 electric utility companies and 26 other business organizations, was formed in 1955 to evaluate and further nuclear development of interest to the state and its industry. It recently donated a gamma radiation facility to the University of Minnesota.
(6) Nuclear Power Group	Study	Not applicable	Group was formed in 1953. Composed today of 7 elec. utility cos. and 1 engineering firm, it is evaluating promising reactor types and making detailed studies of certain types which appear to have greatest future promise. Earlier studies and research with General Elec. Co. led to decision to undertake Dresden Proj. (see Table II, Item 1).
(7) Pacific Northwest Power Group	Study and Planning	Not applicable	This gp. composed of 4 elec. utility cos., was formed in 1954 to study the feasibility of design and const. of a nuclear pwr. reactor. In early 1957 the purchase by a member co. of a site for a future atomic pwr. plant was announced.
(8) Puget Sound Utilities Council	Study and Planning	Not applicable	This gp., composed of 1 investor-owned and 4 state and local gov't.-owned electric utilities, was formed in 1955 to determine the nuclear pwr. syst. or systems most practical, technically and economically, for future use by member utilities.
(9) Rocky Mt. Nuclear Power Group	Study and Planning	Not applicable	This gp., composed today of 6 elec. utility cos. and 3 engineering and industrial organizations, was formed in 1954. It is conducting studies of various types of nuclear reactors looking toward the undertaking of a significant nuclear research program.
(10) San Diego Gas & Elec. Co.—General Atomic Div. of General Dynamics Corp.	Research and Development	Not applicable	San Diego Gas & Elec. Co. is participating in the fission power research program conducted by General Atomic Div. of General Dynamics Corp. The co's. participation will include taking part in the designing of specific reactor systems.
(11) Southwest Atomic Energy Associates	Research and Development	Advanced epithermal, thorium-uranium 233 fuel cycle	This gp., composed of 15 elec. utility cos., was formed in 1957. It signed a contract with Atomics Int'l Div. of North American Aviation, Inc., in Jan. 1958 for a 4-yr. research and development program. Studies and Research are currently underway.
(12) Texas Atomic Energy Research Foundation	Research and Development in the field of controlled thermonuclear reactions	Not applicable	This gp., formed in 1957, is composed of 11 Texas elec. utility cos. It is working with General Atomic Div. of General Dynamics Corp. in a 4-yr. jointly-sponsored research program. Studies and research are currently underway.

our nuclear power program. Two lines of reasoning are current here —one international, the other domestic.

Internationally, there is needless concern over our country's prestige. A number of people — among them many long-time public power advocates—argue that only a crash program of large-scale government reactors can maintain our world position.

Unsound though these claims may be, we as an industry cannot merely dismiss them. Nuclear power is more than a technological development; it is a military and political weapon in the cold war. As an industry, we have been thrust, however reluctantly, on the international stage.

On the domestic front, many misguided citizens are paying heed to the socialized power proponents, who see in nuclear power a chance to further the nationalization of this country's power industry.

Public opinion has always been important to us. But it has never been as important as it is today. We need as never before the understanding and support of the public.

The American people must have a complete knowledge of what we are doing, and what we intend to do, and why. And to provide them with that knowledge, we must be prepared to devote more time, more attention, and more money than ever before.

A second major impact of fully competitive nuclear power will be the impact on our industry of the ultimate *elimination of fuel-cost differentials* between areas of the country.

As the cost of nuclear power is progressively reduced, it will become competitive first in high fuel-cost areas. Eventually, although it may be a number of years later, it will be competitive everywhere.

This single fact is, of course, going to cause a major shift in the economic and industrial geography of the United States.

Today, such industries as basic metals, alloys, and electrochemicals favor locations where they can most cheaply obtain the large amounts of power they use. But with fully competitive nuclear power, they will be no longer restricted to the low fuel-cost areas of today. Determining factors in their location will be chiefly markets, raw materials, labor force, and available sites.

Obviously, this is going to provide hitherto unknown opportunities to a lot of power companies in their area development programs. Formerly fuel-poor areas will have new advantages for industrial prospects. Conversely, fuel-rich areas that have hitherto had advantages built on lower generating costs are going to have nation-wide competition.

One Company's Problems . . .

Two aspects of the situation appear. What are problems for some companies are opportunities for many others. I can't pretend to have answers to these problems or formulas by which to capitalize on new opportunities. But I believe it is none too soon to examine just where those problems and opportunities will lie, and what our solutions may be.

A third important impact of competitive nuclear power will be on our own *power system engineering and economics.*

The new order of things will importantly affect the choice of locations for our own power plants too. Such factors as fuel supply, delivery, and atmospheric pollution problems will cease to be the determinants. The controlling factors will be sites, proximity to load, and availability of condensing water.

These nuclear power plants, with no attendant air pollution problems, fuel delivery problems, or coal piles, will have a higher degree of acceptance by the public in large urban areas.

It also seems likely now that generally competitive nuclear power may first be achieved by atomic generating units or plants much larger than our largest current conventional ones, possibly by a factor of two or three or more. To be sure, the trend in size of both units and plants, however fueled, is already constantly upward. But conceivably, supersized nuclear plants may come into being before their capacity can be justified or absorbed on individual power systems.

The answer might well be multicompany power pools or transmission networks, probably at ultra high voltage, say 500 to 600 kv. Certainly 345 kv will be required. These networks will raise associated problems having to do with interchange arrangements, joint ownership of facilities, standby capacity, operating and power dispatching, pooled reserves, transmission rights-of-way, ultra-high-capacity switching and transformation facilities, and so forth. It is high time that we vastly raise our sights in these areas.

The fourth major impact on our industry will be in the area of *financing.*

Nuclear plants will require higher investment ratios per unit output than today's fossil-fueled plants. The early ones, because they will be relatively new and untried, may be shorter-lived than today's.

Likelihood of early obsolescence will require more adequate depreciation charges. Research and development will continue to absorb much more money than is the case today with conventional power, and this money must be recovered. Because the ratio of fixed costs to operating costs will be higher, capital structures may be altered.

The problem of economic depreciation will be intensified. Special depreciation incentives may be required. Greater capital investment will require higher demand charges in our rate structures; more ratchets; minimum demand guarantees, especially for large cyclical industrial loads; and possibly even a return to the kilowatt-year concept.

For these reasons, and many others, our earnings position will have to be improved, and the form and level of our rate structures will have to be very closely scrutinized and adjusted.

Our rate of return as an industry I believe is too low, not only for today, but more so for what lies ahead. The financial well-being of our industry needs continuing study and planning.

Fifth and last on my list of impacts is the impact on our *manpower* needs.

Too long, our industry has been short of manpower adequate for our rate of growth. The coming of competitive nuclear power is going to intensify that situation too.

For our business is going to become more and more complex in every phase of our operations. I have noted only a few of the broad problem areas. But these are enough, in themselves, to indicate the new dimensions of the executive of the future in our business.

And there will be manifold lesser problems as well. We'll have to adjust to new conditions—and probably more worrisome conditions — in the regulatory and legislative fields and

their effects on both operation and construction. All aspects of our business will be affected — managerial, technical, financial, legal, personnel, public relations, and so on.

The time is none too soon to start recruiting and developing the men who will cope with the increasingly complex problems in all these areas.

In no way do I mean to paint a discouraging picture. If I have concentrated on the problem areas, that's only because problems are more easily solved when they are recognized and dealt with in plenty of time. And there *are* problems we must face *now*.

But our opportunities, of course, far outweigh our problems. This vast new source of energy bids well to set aside the single limit which heretofore has faced our industry in an otherwise limitless future. Limitations on our foreseeable fuel resources have now vanished.

What can we as an industry do about these challenges and these opportunities? Now? Today? Tomorrow? A great deal, I think.

First and foremost, we must continue to expand our research development efforts and our construction programs, so that we may in reasonable time achieve our goal—which is America's goal — of competitive nuclear power. This will take a great deal of time, effort, and money. But with a proper attitude on the part of government, and proper assistance—financial, technical, and otherwise—our industry can certainly do the job.

Second, we need broader and better public information programs at both our company and industry levels. The American public, by and large, is still quite uninformed about the electric power industry. We have to kindle their interest by pointing out how *they* are directly concerned. Then we must see that they get the full facts about what we are doing, what we plan to do, and why.

Third, it's none too early to adjust our thinking and planning to the coming transformation of the industrial map of America. This transformation will have vastly different effects on different companies. But one way or another, it will affect us all.

Fourth, let's plan more intensively for the impact nuclear energy will have on power system engineering and economics. Units and plants are going to mushroom in size; power is going to be generated and transmitted in unprecedented quantities. We can be thinking about how we can use these inevitable developments to the best advantage of our companies, our customers, and our service areas. These developments can justify corporate mergers, joint ventures, pooled operations, and a host of other corporate arrangements which are all too uncommon today.

Fifth, it behooves us to do more thinking and planning in the area of our financial well-being. This will demand increased consideration of such factors as the higher ratio of fixed to operating costs; economic depreciation; form and level of rates; and adequacy of earnings.

Sixth, let's not forget, in our preoccupation with major problem areas, that there are going to be manifold lesser problems as our business continues on the road toward increasing complexity. They are going to crop up in every area of operations, and the time is none too soon to start recruiting and developing the men who will cope with them. Our industry has too long been short of adequate manpower for our rate of growth. And it is the recruits of today who are solvers of tomorrow's problems.

Seventh and last, let's remember, whatever else we do, that the threat of socialized power is not only still with us, but is going to stay with us. We must meet it with every resource we can muster, remembering always that our strongest ally is an interested and informed public opinion.

Implicit in all our planning, of course, must be the realization that we cannot foresee the future. We can make informed estimates, forecasts, and predictions. But we cannot know for sure. As I suggested, much that is commonplace today could not have been foreseen 20 years ago.

So 20 years from now, it may be that we will look back on these remarks and murmur something like: "How could we have been so far afield in foreseeing what was to happen?"

But today, our direction seems pretty clear for years ahead. The coming of economically competitive nuclear power is as certain as anything well can be. And I hope that in 20 years' time those of us who are still around will look at the changed face of America, and at the state of our own industry, and be sincerely thankful that we recognized, and tackled, the opportunities and challenges of 1958.

TABLE V—ESTIMATE OF EXPENDITURES BY ELECTRIC UTILITY COMPANIES FOR NUCLEAR POWER DEVELOPMENT (*a*)

	1955 and Earlier	*1956*	*1957*	*1958*	*1959*
Expenditures for Plants (*b*)	$11,200,000	$25,100,000	$34,900,000	$52,700,000	$92,600,000
Other Expenditures (*c*)	2,800,000	2,000,000	4,300,000	6,400,000	10,000,000 (*d*)
Total by Years	14,000,000	27,100,000	39,200,000	59,100,000	102,600,000
Cumulative	14,000,000	41,100,000	80,300,000	139,400,000	242,000,000

(*a*) Based on replies to inquiries to member companies of the Edison Electric Institute. Practically all electric utility companies known to be participating in one or more phases of nuclear power development supplied information.

(*b*) Estimate of expenditures by electric utility organizations for following plants in operation, under construction or under contract, including accompanying research and development work, but exclusive of any excess operating costs.

Dresden
Enrico Fermi
Indian Point
Pathfinder
Santa Susana
Shippingport
Vallecitos
Yankee

Figures for 1958 and 1959 do not include an estimate of expenditures for the recently announced Pacific Gas and Electric Co. Humboldt project.

(*c*) Includes expenditures by individual companies and groups of companies for nuclear power study, research, and development. These figures do not include expenditures associated with any of the eight projects listed in (*b*) above.

(*d*) Approximated.

Capital Requirements in an Inflationary Era

By Lloyd D. Brace

President, The First National Bank of Boston

An address before the Twenty-Sixth Annual Convention of the Edison Electric Institute, Boston, Mass., June 10, 1958

IN a period that seems to be either a recession or a depression, depending upon who is speaking, it may seem strange that a talk on capital requirements of the utility industry should stress the inflationary potential. But if I may be allowed to define my terms and develop my reasons, perhaps you will join in the conclusion that present circumstances are not likely to persist.

Erosion Over Last Two Decades

Over the next seven to 10 years, or roughly up to 1965, the period which I should like to consider, I have no serious worry of inflation in the sense that our currency would become valueless or that the printing press would be turned on full steam. I am thinking rather of the persistent and steady erosion of the purchasing power of our dollar over the last two decades—a trend which is continuing even now at a time when our economy is softer than many would like. It is even possible that a further decline in the value of the dollar might be accentuated because of that very softness. Certainly, many of the panicky measures advocated early in 1958, some of which have been adopted in less violent form, could hardly avoid producing inflationary pressures at a later date.

Review of Dollar Power

It may be pertinent to review briefly what has actually happened to the buying power of our dollar. We know, of course, that it has been cut roughly in half since 1939. Inasmuch as the early part of the period included World War II, it is probably more useful for our purposes to think of changes over the past decade.

With the steady rise in the consumers' price index, the 1947-49 dollar in the past spring was worth about 81 cents. I might add that your own industry's record in holding price gains below the average has resulted in about 5 cents more power in the dollar

LLOYD D. BRACE

spent for electricity. Based upon the all-inclusive wholesale price index, the over-all businessman's dollar has about 84 cents in purchasing power compared with 1947. But that is highly deceptive, as this figure would be but 65 cents in the field of metals and metal products, where prices have risen most. And a rough calculation would suggest that this figure is about in line for many of the large and costly items which you must purchase for your plant expansion programs.

History shows that every major war has been followed by several years of vigorous and sometimes frantic replenishing of the goods that people and business need and want. This has usually been followed by a period of substantially reduced activity while the economy gets its breath.

Thus, since 1947, except for short interruptions in 1948-49 and again in 1953-54, we enjoyed on almost every front a boom which took us to new economic heights in the third quarter of 1957. All elements of the economy, particularly organized labor which was able to get steady increases in wages running at times beyond gains in productivity, thoroughly enjoyed the experience.

Since last summer we have been in a period of recession. Despite a steady and marked decrease in production, employment, and—to a lesser extent—income, prices and wage rates have continued to show advancing tendencies. Thus many perceptive observers have wisely concluded that the inflationary threat was only dormant.

Against Natural Laws

Anti-recession actions and suggestions, in Congress and out, would seem to indicate that a substantial number of persons—perhaps a majority—are unwilling to allow natural laws to work. Most people fear any deflation. Although they may say they want lower prices, they appear to prefer mild inflation when the chips are down. If the government is to interfere at the first signs of dip, as so many have advocated, a drift toward a controlled economy seems quite possible.

And it is small wonder that the mythical man in the street should be confused. In the same day's press one has been able to read that several eminent and respected economists feel the threat of inflation is much less to be feared than a slow-down in business or a rise in unemployment beyond minimum levels, while other equally respected economists tell us that creeping inflation is more of a threat to our way of life than even the Russian menace. Both groups, by inference, suggest that we may expect inflation, but one advocates it. Therefore, I prefer to be on the safe side by anticipating that inflation seems likely to be a continuing process even though at varying rates, rather than to find suddenly that it must be faced.

Reason for Inflation

Perhaps we can bring into somewhat sharper focus the reasons behind the probability of further inflation. One of the primary points would certainly be that, unlike previous periods following a major war, we have been —and for a long time ahead will be—

engaged in a defense effort, whose impact upon our economy is fully as significant as in previous full-fledged wars.

There are many who feel that Russia is unlikely to strike unless she has clear-cut superiority to guarantee quick success, or unless internal conditions in that country deteriorate to the point where the present ruling clique could only hope to maintain its power by a desperate bid to divert energy and attention to an external foe.

Defense Cost May Rise

In order to be sure that the first of these eventualities does not arise, the magnitude of our defense efforts may well increase in cost still further as the complexity and sophistication of our weapons systems require larger and larger expenditures for hardware and for research and development. That there may be a lessening of tension and a corresponding reduction in expenditures solely for defense, is the fervent hope of all, but the most realistic assumption is that such a time is not near at hand nor likely to develop during the period we are considering.

In addition to the defense requirements in this uncertain world, there is another aspect of the situation likely to prove costly in one way or another. Whether or not you choose to accept the rather generally expressed idea that Russia's growth rate is twice as rapid as our own, there is an added economic and subversive threat from her new and growing capabilities in production and trade that we cannot afford to disregard.

Our recession has been used against us with great propaganda advantage, so that we must strive to hold it to a minimum. With a monolithic, totalitarian regime, the Soviet Union is in a position in world markets to withhold supplies of goods, to engage in dumping, to cut prices indiscriminately, to make loans at low rates, or to indulge in other forms of economic warfare of their choosing. Such tactics could easily be costly to the United States in military or economic aid, development funds, or in other ways likely to add still further to the costs of government and the consequent inflationary pressures.

Added to this new and weighty influence of the costly "cold war," we find an expanded role of government in numerous other directions. Under the Employment Act of 1946, the Federal government has assumed enlarged responsibilities for the promotion of "maximum employment, production, and purchasing power." To the extent that government interprets this commitment as a mandate to provide "overfull" employment, it may be unable to resist the pressures to take steps which will have the effect of validating excessive wage demands. Where these tend frequently to outrun improvements in productivity, this would encourage rising rather than stable prices.

In the areas of broader responsibility to people, such as housing, social security, education, and others, the trend seems to be toward more and more direct Federal programs or grants-in-aid to the states. The net result seems likely to be ever higher Federal spending. As you know, the latest estimates for fiscal 1959 suggest the possibility of a deficit of some $8 billion, without any allowance for tax reduction or added emergency expenditures during the year ahead. Thus, Federal taxes will most likely continue extremely burdensome, and tax revision or reform—which might bring about more equitable distribution—may be postponed.

Of equal or even greater importance to you, I am sure, is the trend at state and local levels of government where a similar philosophy of "doing good" has fanned out widely and expensively.

Government Spending Soars

According to a recent study by the Tax Foundation, there has been more than a threefold increase since World War II in both state and local government expenditures, and in state and local debt. The *amount* of increase in state and local spending from 1946 to 1956 was almost as great as the increase in Federal expenditures from their post-World War II low to the current level. Expenditures of state and local governments are likely to rise more rapidly than the total national output, using even the most conservative assumptions about future demands for services. The pressures on the states and localities for new taxes and additional revenues will almost certainly mount in the years ahead.

With all levels of government increasing their spending, there is bound to be competition for sources of revenue. One would also be justified in assuming that borrowing would be extensively used, and this would clearly have inflationary implications.

A third point which I am sure is highly disturbing to all of us in business is the unfortunate effects of the monopoly power of the labor unions. Its results are perhaps best exemplified by the steady increase in wage rates over a period of several decades through threats to halt production in key industries. Since this has not been accompanied by commensurate gains in productivity, particularly in recent years, unit labor costs have tended to rise disproportionately. Here we find the basis for a new rigidity in costs which has boosted break-even points and produced a troublesome "stickiness" in prices, while also seriously eroding profit margins.

Chamberlin's Study

A recent study by Edward H. Chamberlin entitled "The Economic Analysis of Labor Union Power," published by American Enterprise Association, advances "abundant evidence that unions today do have too much economic power." Where this is true, the author concludes that the public interest requires that steps be taken to reduce it. I would agree with him "that unions, like business corporations, are 'here to stay.' But also, like business corporations, they can be subjected to social control."

This necessity will continue to be a pressing problem until we can arrive at some equitable solution, and I suspect will provide some pressure toward inflation over the period under consideration. While this does not exhaust the reasons that might be advanced for the inflationary potential in the years ahead, certainly the heavy defense spending, rising non-defense expenditures in view of the expanded role of governments, and the monopoly power of labor unions, provide three major road blocks. Thus, I come to the conclusion that even though we may continue to have periods of recession of varying intensity, the only safe basis for planning for long-term capital needs is to recognize the likelihood of further decline in the value of the dollar.

You may well ask whether government cannot satisfactorily control this process through the manipulations of monetary and fiscal policy. Experience

of the past year suggests the difficulty, if not impossibility, of coping adequately with "wage-push" inflation through monetary policy alone.

The Federal Reserve has dealt courageously and forthrightly with the problem and gained much useful experience in the power of its various tools for influencing the supply and cost of credit. It deserves our understanding and approval. But apparently we must risk some slackening of business and unemployment to accomplish necessary readjustments via this route. Politics being what it is, this is highly unpopular, for an economy always operating in an expanding boom is widely regarded as desirable and essential.

A realistic attitude tells us that this is not possible, but political competition belies this answer. Monetary policy seems destined at best to keep our inflation within narrower limits than would otherwise develop if purely political considerations were allowed to prevail. While it might seem a worthwhile accomplishment to hold our inflation to a "creep," this could turn out to be a seductive and deluding pace.

If the trend takes the direction which I suggest, what might this mean to the economic growth of the nation, upon which, in turn, the continued growth of your industry is to a considerable extent dependent? Even recognizing the hazards of long-range projections, they must, of necessity, be a key element in investment planning of business as well as policy decisions by government in many areas. Perhaps at present, when the economy is in a recessive phase, this may seem to you to add to the hazards of projecting its growth. I would suggest, however, that over the period to 1965, benefiting from a rising trend of productivity similar to that in our past history—2½ per cent per annum compounded—we might expect to build up to a potential gross national product of close to $550 billion in 1957 dollars.

Key to Goal

The key to our achievement of such a goal would be based: first, upon our ability to work our way through the present readjustment period without dropping into a depression; and, second, upon the avoidance of inflation. I am more sanguine about our ability to accomplish the former than the latter, as I have already made clear. The pathway to such a medium-term goal could, of course, be considerably roughened by the presence of intermittent inflationary pressures.

At times progress might be speeded up as it seemed that prices were likely to rise and, therefore, anticipation of expenditures would be advantageous. At other times, when it might appear that some slackening in prices was in the offing, there might be a tendency to slow down expansion. This environment, even though it should demonstrate that the broad long-range trend was inflationary, would increase the problems and complexities of business operation to a considerable degree.

The Price of Inflation

If we may now carry over this general line of thinking into the area of capital requirements, it would seem to me possible that these might be both enlarged and made more costly by continued inflation. At this point you will perhaps say that the private utility industry has amply demonstrated its ability to finance an astounding increase in capacity both during and after World War II, and therefore no new problem is being faced. We can certainly hope that this is true but the probabilities seem to point to a very long line of applicants in the capital markets in the years ahead.

The needs of your industry are so great that you cannot afford to be very far behind top rank in the preference of investors, however well you have fared thus far. Changes in investment preferences do take place, and are not quickly reversed. We have already had occasion to note that all levels of government are likely to be substantial borrowers over the period about which we are concerned. Other places in the line will certainly be taken by many types of business as well as by utilities.

One projection of capital spending for 1965, prepared by McGraw-Hill, shows a level well in excess of $40 billion measured in 1957 dollars. The larger economy will be utilizing more steel, aluminum, chemicals, synthetic fibers, plastics, and numerous other items than ever before. Research and development expenditures by industry are estimated to have exceeded $7 billion in 1957, nearly double the 1953 level. To this might be added government, university, and foundation expenditures on research of $3 billion last year. Under favorable conditions, total research and development spending might well climb to $15 billion in the early 1960's, providing the basis for the new products and processes of a healthy, growing economy and a commensurate demand for fixed capital to bring these programs to realization. The users of capital funds are likely to prove numerous and demanding, with a reasonable chance that requirements will exceed supply.

More specifically, what is the probable magnitude of the utility industry's problem? Perhaps a fair estimate of the total new construction needs of the investor-owned utilities for the eight-year period 1958 to 1965 inclusive, and assuming installed generating capacity at the terminal year of 160 million kilowatts, would be $40 billion. This would work out to an average annual value for plant expansion more than double that of the period 1948-1957. It would likewise be about $5 billion more than the total estimated electric utility plant account at the end of 1957.

If we may assume that the industry will generate internally about the same percentage of its total cash requirements for construction as it has in the past decade; then the investor-owned companies would have to go to the financial markets for roughly $25 billion. In any one year the range would probably be from $2½ to $4½ billion. Further, if the ratio of long-term debt to total capital raised during the 1946-1956 period were to prevail in the years ahead to 1965, the long-term debt requirements alone might equal more than $16 billion. This would be close to the total capital raised from all sources in the past 12 years.

The Other Industries

While such needs on the part of the electric utilities will rank them high on the list of expanding industries, where they have indeed been during much of the post-World War II period, substantial financial requirements in most of our basic industries must also be reckoned with. These will need to be added to the growing requirements of government. And we must not overlook individual demands for mortgage money and for various forms of personal credit, which are almost certain to be heavy in the early 1960's, if we

achieve our projected growth in population, labor force, and output. To meet such capital requirements, huge savings will be required, and savings under inflationary conditions are quite likely to develop an ugly and troublesome gap between supply and demand, as was the case during much of the 1955-57 boom period. Clearly, difficult financing problems for those seeking capital seem certain in the years ahead, once we resume our economic growth.

And what of interest rates? This is indeed a difficult area to forecast, as you are all aware. One cannot be very specific. But we may note that interest rates and bond yields have shown an irregular advance over the years since World War II. There have been several surges which have shown successively higher starting and ending points. If this pattern is to continue, one could argue quite convincingly that the next advance might well set another new record, especially since recent peaks are by no means historically high if one looks back prior to the early 1930's. Perhaps the combination of latent inflationary pressures and the potentially strong demand which we have suggested combine to make this a reasonable "guesstimate," particularly if we can assume that the Federal Reserve will retain reasonable latitude in its use of credit policy.

Course of Action

If, at this point, we may assume that management is willing to accept as a working hypothesis the prospect of further inflation, a broad, sustained demand for capital, and possibly a rising trend in the cost of money, what course of action does this suggest? My answer is the raising of capital early enough to at least temper some of the stresses which may be expected to make themselves felt.

I am well aware of the thesis that in periods of inflation, whether mild or active, it is desirable to have debt, in the expectation of paying off later in cheaper dollars. I am equally well aware of the beneficial effect upon per share earnings if debt rather than equity is increased. But make no mistake—lenders are and will be equally well aware of these facts. They will be less than anxious to freeze their dollars in any situation should there be any doubts about that industry maintaining strength while meeting steadily increasing needs. This seems particularly important in your industry where you must be amply prepared to serve the public demand.

It is certainly pertinent at this point to recognize the splendid record of the private utility firms. Despite the raising of $15 billion from 1946 to 1956, the ratio of debt in the capital structure was actually reduced by one percentage point to 50½ per cent. Preferred stock was relatively less widely used at the end of the period, while common stock and surplus combined accounted for over 37 per cent of capital structure in 1956 compared with 31½ per cent in 1946.

It would seem desirable that such steady strengthening of the capital base should be fostered at every opportunity in order to provide the soundest possible foundation for the most desirable debt structure. If, on the other hand, a policy of minimum equity were to be followed, it is not difficult to imagine a condition evolving where some utilities, not widely considered by the investing public to be in the inflation-hedge category, might be able to put their capital structure in position to satisfy a prospective lender only at an excessive cost. Conditions affecting investors' psychology can change with great speed, as events of the past six or eight months have demonstrated. It may then become a slow and difficult task to restore the climate most conducive to meeting the continuing needs of a business which just won't stop growing.

In your industry, with its record of successful planning for growth, it is perhaps presumptuous of me to suggest that improved methods could be developed. I raise a question, however, whether it might be possible to work toward providing a little more than the normal added capacity in periods when capital supply seems likely to be relatively easier or cheaper and, perhaps, slow down a bit when the reverse were true. Such a course would be desirable only if management were persuaded that business cycles are not entirely a thing of the past, and recent experience would seem to validate this assumption. And, too, this would represent merely a deviation from the long-term trend accepted as any particular company's requirement and plan. With skill and courage—and a bit of luck—such a procedure might remove some of the most extreme pressures of raising capital.

In your industry—even as in banking—adequate capital is essential to our freedom and flexibility. Too little capital to meet the needs and wishes of the public, both customers and investors, will invite unthinking criticism. And a ready, willing, but not necessarily able bureaucracy can be expected to step in and take over in any such eventuality. If the question of private versus public power is to be clearly resolved in your favor, as we hope it will be, then the independence which stems from a strong, adequate capital structure must be high on your priority list.

In an inflationary situation such as we seem destined to live with over the years ahead, it is clear that the provision of capital requirements of industry will be a continuing challenge, calling for all the financial acumen of management. In this process, the commercial banks will be ready to do their part, working closely with your industry as they have in the past. We have both profited by the relationship which has allowed many of your companies to borrow as you spent, awaiting what seemed to be an auspicious time to sell securities. This is the kind of arrangement which should continue to be valuable in the future which we have dimly portrayed.

A Matter of Leadership

It is equally apparent that such an inflationary environment calls for the most enlightened and intelligent top management leadership which we in business and industry are capable of providing to our companies, our communities and our citizens. To the implementation of this leadership, your industry, with so many customers and stockholders throughout the land, is in a unique position to contribute—to help in slowing or reversing the inflationary trend whose outcome would be ruinous if it proceeds too far. The alternative could eventually be bigger government and more controls over business enterprise—including both management and labor. This is an alternative with which you are not unfamiliar and one which we must seek to avoid at all costs if we are to achieve the promise which our future holds.

A Three-Legged Stool Supports Free Enterprise in the Utility Industry

By Hon. Alan S. Boyd

Chairman of the Florida Railroad and Public Utilities Commission

An address before the Twenty-Sixth Annual Convention of the Edison Electric Institute, Boston, Mass., June 10, 1958

ALL of you engaged in the generation and distribution of electrical energy are constantly exposed to the ministrations of regulatory agencies. Whether this is a blessing or curse is a question that must be often debated among yourselves. It is not my purpose to reach any conclusions in that field.

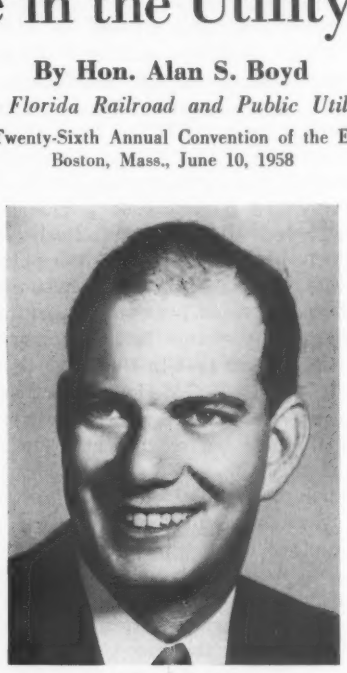
While I should like to think that my views are representative in the regulatory field, I can only speak for myself. It will be up to you to decide whether these views are atypical or rather those of typical state regulatory personnel.

"A Three Legged Stool Supports Free Enterprise in the Utility Industry." This is my thesis. The three legs are, of course, investor, consumer and the regulatory agency. That most important function—management—is to be considered as the alter ego of the investor. I shall try to define the relationships, discuss some of the problems created thereby and hopefully offer some thoughts for the future.

'Nervous System of Civilization'

Electricity and its transmission and distribution lines have been accurately described as "the nervous system of modern civilization." At present, according to figures furnished by the Institute, approximately 75 per cent of this nervous system in the United States is investor-owned or within the realm of free enterprise. Our concern is and should be what the future holds. What will this percentage be 25 or 30 years hence? The advent of nuclear energy and the manner in which it is developed may have a considerable bearing on this figure.

Now let us return to the three legged stool, which I am reminded is characteristic of a milkmaid's stool.



ALAN S. BOYD

But, I'm sure that none of us have the desire to "milk" anybody.

Investor's Interest

The investor is most assuredly interested in free enterprise in the utility industry for reasons that are obvious. The consumer provides the main support to the free enterprise, willy-nilly, and his support of the industry in the field of free enterprise as opposed to public ownership of power may be unknowing, but more properly this support will depend on the manner in which the industry has educated the consumer to the advantages to be derived from private ownership.

Some serious consideration must be given to the desires as well as the needs of the consuming public. They pay the bills and provide the cash to make this whole vast enterprise possible. It is not enough to state that what the public wants is more electricity at less expense. The consumer should be well educated by you. The consumer should know, for example, what is a demand rate, the theory of interruptible power sales, how a fuel adjustment clause operates and what the average cost is of installing electrical service at a residence or business location.

Another important item is informing the consumer the approximate added cost where major new appliances are purchased. This is a tough problem since the utilities operate or control only a fraction of the appliance sales. But it is an area where a lot of ill will has been developed. You must keep constantly before you the fact that electric utilities are suspect as the result of excesses of an earlier generation. Matters not understood or facts misrepresented to members of the consuming public create additional burdens for the utility and for the regulatory agency.

Regulatory agencies such as ours in Florida are committed to the support of privately-owned electrical utilities by the fact that we regulate no other type and by the further fact that we are required by law to provide rates that will permit a "fair and reasonable" return to the owners of the utility. It is understood that some regulatory agencies may also have jurisdiction over some aspects of publicly-owned utilities and there may be other exceptions which are not in major conflict with my thesis.

Chairman's Philosophy

My philosophy requires me to support private ownership of electrical utilities under sound regulation. Sound regulation does *not* encompass usurpation of management policies by the regulatory agency. But, due to the fact that the generation and distribution of electricity is a monopoly in fact and in name, there should be some rules of operation established and enforced.

The investor in the electric industry is someone I visualize as desiring continued growth with stable or

preferably increasing earnings dependent upon the existing economic situation. Such earnings require sound management, enlightened regulation and the support of the consuming public.

The big question is why should the consumer support privately-owned as opposed to public power? Public power is not illegal, it does work and in some cases it may be less expensive than would electricity sold by a privately-owned competitor.

Basic Objection

The basic objection to public power stems from the fact that power is a basic industry. Control of the power industry would mean control of our modern existence. This has been established conclusively by all authoritarian governments in modern times. It is interesting to note that all of the revolutionary activities in Central and South America in recent years have included bombing or capture of power plants among their first priority objectives.

Secondly, public ownership of power on a grand scale would mean a complete change in our way of life. Not only would existing tax structures be inadequate but it would require a most sanguine individual to feel that such a condition could occur without ultimate nationalization of all other major fields of private endeavor.

There are many sincere individuals and organizations in this country today advocating an ever-increasing percentage of public power. Undoubtedly, many of them give no thought to other corollary effects of such action, but there are many who do know exactly what will happen in such a case and who revel in the thought. The consumer must be made aware of these facts. Any educational program must be pitched altogether on the advantages that accrue to the consumer from the use of privately-owned utility services.

Nuclear Energy Battleground

All of this has to do primarily with the development of nuclear energy. Here is where the battleground of public versus private power really lies. The development of this new fuel for the power industry will be swift. The die may well be cast by the manner in which this battle is fought. By this I do not mean to advocate necessarily that private ownership should "git thar fustust with the mostest."

The utility industry spokesmen assert most earnestly that full support and free rein should be given to the industry in conducting research and development programs in the nuclear energy field. This, of course, pertains to the regulatory agencies; and since they only establish the rules, what is meant is that the consuming public should be required to underwrite the cost of this experimentation. With this argument, I am in full accord.

The benefits to be derived from such programs will be passed on to the consuming public. The necessity of perfecting a source of fuel to replace our present fossil fuels is readily apparent.

I feel most strongly, however, that within this program of research and development (which will include construction of first and second generation plants) there should be a partnership of consumer and investor and not alone a joint venture on the part of consumer and the Atomic Energy Commission. It is far too easy to relate all the benefits to be derived by the consumer while forgetting any advantages that may accrue to the investor.

The investor cannot content himself with being a standard bearer for free enterprise while the consumer pays the bills. Some of the risk capital in the development of the nuclear energy program must be supplied by the investor. I do not know the amount and have no formula for participation but I am sure this must be the case and on an increasing scale.

It really seems to me that the term "risk capital" in its historical sense is foreign to the electrical utility business in this day and time. It is used to define the capital invested in a business at the risk of losing part or all if the venture fails. In an electric utility today the only risk is whether the earnings will be less or more and whether the market value of the stock will appreciate or depreciate; this has relatively little to do with the operation of the utility as a business.

As an intrinsic factor in the investment of risk capital in development of the nuclear energy program, it is incumbent upon the investor to communicate the fact of the investment to the consumer. This communication can and should state that the investment is made for the benefit of the consumer and for the maintenance of free enterprise that pays its own way in the support of our free institutions.

Wasted Advertising Effort

This leads me into the advertising program of the industry particularly as it relates to the public power program. I am no expert in evaluating advertising but what I have seen of this program to date strikes me as similar to an attempt to sell oranges by stating what is wrong with apples. A negative approach represents wasted effort. It is my firm belief that the investor-owned electric industry has the same friends and supporters it had before this advertising program began—and few, if any more, as a result of this program. The ads refer to the fact that you pay taxes which in turn are used to support and expand your competitors. Who cares?

Unless the consumer is made aware that by this he is adversely affected and further that investor-owned utilities perform a better service for the same or lesser charge, the advertising program can do no more than anger the supporters of REA and other public power project supporters. You should sell *your* advantages, not the other fellow's faults. An affirmative factual program to educate the public to the value and advantages of investor-owned utilities is a legitimate business object and should be so treated. A negative attack on a competitor does not warrant the same consideration.

Ask More, Get Less

While utility management must answer to the investor, utility regulation is required to answer to the consumer. If we could establish an optimum rate of return for every company, I am sure we would find that management would seek more and that regulation would provide less in nearly every case. This is altogether natural because of the relationships involved.

It seems to me there is a further natural desire on the part of the

utility investor to combine the protection of a monopoly with the income of a successful speculative enterprise under supervision of benevolent regulation. Where the rate of return is good, many investors want further improvement. This is not going to happen. Electric utilities cannot expect to earn profits on the same basis as other commercial ventures under existing regulatory philosophies.

Efficient management and cost saving practices are expected of the utilities. Savings derived must be passed back to the consumer rather than to the investor. All sound and reasonable rates of return allowed by regulatory agencies provide for adequate dividends on equity capital with additional sums for transfer to surplus. These stable earnings are the most that can be anticipated by the investor.

It is my belief that efficient management should be well and liberally rewarded by the utility owners and such rewards approved by regulation. There should be some incentive to cut costs other than merely being able to retain a job. The fact that good management is rewarded can be used as an inducement in recruiting programs.

The ability to employ not just well qualified but outstanding young men for executive training is of vital importance to the utility industry. Regulation must realize this and cooperate wholeheartedly by allowing the utilities free rein in setting attractive salaries and providing liberal fringe benefits. If the electric power industry is to remain in large part investor-owned, the best brains available must be brought into the industry.

So far we have discussed what should be expected of the investor interests in the utility industry. The problems of the industry are many.

I recognize one of the problems of the utility industry is that regulatory agencies are by their nature "second guessers." The utility never knows whether it has hit a home run or has struck out on a specific matter until the regulatory agency rules *ex post facto*. This type of regulation is far from satisfactory.

The regulatory agencies must become more of a positive force by anticipating problems and providing policy solutions so as to establish guideposts for the industry before it makes a wrong turn.

This does not mean that regulation should either abdicate or issue a blank check to the industry. So long as the utilities are operated by fellow human beings, there will be those who are guilty of excesses and abuses unless curbed. But, enlightened regulation can in many instances point the direction and give utilities to understand they are safe so long as they remain headed in that direction.

Regulation Is a Benefit

Sound regulation is of real benefit to the industry as well as the consumer. Through the prevention or correction of excesses it can in effect save the industry from itself. Regulation can also serve to bridge the gap of misunderstanding and misinformation between the public and the consumer provided the regulatory agency is one in which the public can have confidence. Here let me say that the industry has a very large stake in the creation of well-respected regulatory agencies in each state. Such an agency can, where the facts dictate, grant necessary rate increases without drawing the wrath of the public on the utility or fear of political reprisal on the agency.

The need of regulation to be able to recruit men of outstanding ability with inquiring minds is of no less importance than the same requirement of the utility industry. Regulation cannot fulfill this need without the active support of the investor-owned utilities. This problem touches the regulatory philosophy of the investor and management.

Best Which Regulates Least?

It is patent that some investors and some members of the Utility management fraternity feel that that regulation is best which regulates least. In those circles the belief is that regulatory agency orders are a good thing to hide behind when rates are increased or service unavailable, but it is preferable for the agency to be unable to obtain too much knowledge about the utility. These people operate on the theory that a *lot* of knowledge can be a dangerous thing.

I do not think this feeling is representative of even a majority of the people who comprise the investor-owned electric industry. But if you are candid about it, you will admit that this view is shared by some and no doubt considered by others. In my opinion, this view, this approach to regulation, is all wrong. It is based on the erroneous premise that if regulation knows the full facts of the utility operation such regulation will automatically be unfair to the investor. With only rare exceptions, it has been my experience that the regulatory personnel I know want to do equity to the utility and will, if properly informed, protect the interest of the investors.

The natural conclusion is that those who fear too much regulation either have skeletons in the closet or else consider that regulatory personnel are not capable of understanding the import of the full facts.

Now if there are skeletons, those who have them are indeed foolish not to dispose of the skeletons voluntarily. Skeletons have the bad habit of emerging at inopportune times.

The consuming public is not composed of morons. As a matter of fact, a lot of you people will be retiring in the future and moving to areas served by other companies. When you live on retirement income not only does the utility bill become important but, in addition, electricity is your field and you will have a natural curiosity about the local utility operation. This has happened in Florida. Let me add that we have not been confronted in Florida with any of these skeletons. My point is that the facts will ultimately come to the surface.

The feeling about the inability of regulatory personnel to understand, if true, goes right back to my statement that we can have good sound regulation only with the help of the utilities. We obtain our technical staff on the same basis as private enterprise—on the basis of compensation. Utilities as well as customers should share the responsibility of seeing that state regulatory agencies have the necessary funds for informed and fair regulation always.

I refer to the technical staff rather than the elected or appointed Commissioners. With a well-qualified staff, I believe that there will be sound and equitable regulations; without such a staff, the utilities and the public are both going to suffer.

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The Challenges to Free Enterprise

By Hon. Styles Bridges
Senior U. S. Senator from New Hampshire

An address before the Twenty-Sixth Annual Convention of the Edison Electric Institute, Boston, Mass., June 10, 1958

YOU represent a fine industry, but one which is constantly harassed by those who would change our system of government.

It is perhaps appropriate that this convention should be held in historic Boston, for at the time of the American Revolution, it was Boston in particular that rose to resist attacks on individual freedom and liberty.

The reaction of the colonists is too familiar to bear repetition, but it is well that we continuously re-emphasize the underlying spirit behind our Revolution—the love of independence and the refusal to accept any government action that was intolerable.

Today, our independence is faced with a double-edged threat. First, we have the military and ideological threat posed by Socialist Russia. And second, we have the internal threat from those who believe this Nation should adopt its own version of socialism.

The Soviet Threat

I would like to comment on the current tendency of many to believe that Russia's communistic system is producing better results than we are under our system of freedom and liberty.

The Communist Party in Russia is dedicated to one single objective, and this is making the Russian state the most powerful in the world and the Communist Party the most dominant force in the world.

In measuring relative progress being made, we should be careful to use a yardstick that reflects the things the American people want out of life. In peacetime, our objective is the attainment of the maximum happiness for each individual with the individual himself deciding and seeking those things that mean happiness for him. So, our objectives are manifold.

If it's good housing the individual wants, good housing he gets. If it's automobiles, refrigerators, television sets, that's it. If it's art, culture, education, and libraries, that's it. If it's churches representing different faiths, that's it. And if it's the best military defense or offense in the world, that too is it.

HON. STYLES BRIDGES

During World War II, America showed what it could do when all its energies were directed to the single objective of winning that war. Any time we must concentrate upon a single objective, whether it be winning a war or preserving our freedom, have faith—have no fear—we will do it!

I recently read a news item in a Washington paper reporting a talk on freedom of the press made by that newspaper's managing editor. He said it was about time we realized that freedom of the press belongs to all the people. Well, I think it's about time we realized that this is also true of free enterprise.

Only through free enterprise can the people be certain that they get what they want, not what the government thinks they should have.

The Enemy From Within

We know there have been people deliberately plotting on behalf of the Soviet Union in our country. We have faced up to this threat and have done something about it. The Communists in our midst we must watch, but we believe we can handle.

What makes our problem more difficult is the fuzzy-minded liberal who thinks he is advancing the cause of humanity when he advocates more and more paternalistic government, when he votes for government controls, or when he votes for government to manufacture one of his basic needs.

The liberal is not alone, however. What of the unthinking materialist in our midst with no historical background to warn him what happens when a Nation's people begin to live by the philosophy: "The country owes me a living."

That attitude, of course, is not in the American tradition. It wasn't charity that made our country great —nor a dole, nor a welfare state, nor government interference, nor socialism. Instead, it was achievement by the individual, and his pride in that achievement. It was the feeling of any man, however humble, that what others had done under free enterprise and free government, he could do.

We have come too far from that ideal. As a consequence, today in these United States we see a Federal bureaucracy growing to tremendous proportions. It is a Federal bureaucracy which robs people of their backbone by kindly offering to do things for them, and, in addition, robs them of incentive by outright interference and by unfair competition when they try to do things for themselves.

The Spread of Government

Our Nation began its life as a Federation of Sovereign States with a Federal government exercising rigidly limited powers. No longer are these powers limited. The Federal government now touches the lives of each of us every day in some way or another.

Today, 37 million 817 thousand citizens are receiving some form of payment from the Federal government.

When we include dependents, probably one-half of the population of the

United States is receiving directly or benefiting indirectly from some sort of payments from the Federal government.

The extent of direct Federal aid to individuals, in my judgment, gives real cause for concern. It indicates continuing centralization of government in Washington, with correspondingly less control by individuals over their own destinies.

As the national government undertakes to "do things for" the people, it creates new classes of selfish vested interests who resist any attempt to change or end the particular program that benefits them. The longer a Federal program operates, the more entrenched it becomes and the harder it is to stop.

In this connection, many of you will recall Professor Parkinson's spoof on bureaucracy which, though funny, contains a good deal of truth. Professor Parkinson, writing some years ago in the London *Economist*, advanced the contention that in government there are two axioms: first, a bureaucrat strives to increase subordinates, not rivals; and, second, that bureaucrats strive to make work for each other. Parkinson expressed these axioms in a formula to prove that the number of subordinates multiply at a steady rate regardless of the amount of work turned out. As part of his jest, he even calculated the rate of increase of between 5.17 per cent and 6.56 per cent a year—even where the final output decreases.

Government Grows Bigger

Returning to our main theme, I wish to refer to an excellent study made recently by the Legislative Reference Section of the Library of Congress at the request of some of my colleagues in Congress. This study is designed to show the effects of a big government that is growing bigger on individual rights and free enterprise.

The study has a good deal to say about taxes. The government, of course, has a right and a need to tax us.

Where the power to tax gets out of hand is where taxation becomes oppressive and this, largely to support unnecessary expansion of government.

The study notes that for 1956, the per capita tax from all levels of government was estimated at more than $600. About 75 per cent of this represented Federal taxes. Twenty years ago, the per capita Federal tax burden was only about $30.

Though national income quadrupled from 1929 to 1955, Federal taxes increased 23-fold.

Tax Rates Cause Concern

Following World War II, a special tax committee of the House Ways and Means Committee reported its concern over the effects of high tax rates on production as follows:

> "With the present scale of tax rates, we have put the brakes on men's incentives to a dangerous degree by piling heavier and heavier burdens on them as they try to climb up the ladder . . . this is stultifying to the kind of dynamic long-term growth that has characterized this country in the past. . . .
>
> "If our economy is to survive and prosper, we must see to it that men are encouraged to work and produce, to turn out better goods at lower prices. Particularly, we must see to it that tax rates are not so high that a man has little or no incentive to work harder and produce more."

The obvious danger of this increasingly high taxation is the aid it gives to creeping socialism. Bear in mind that Karl Marx predicted in 1848 that the destruction of Capitalism would be achieved by the destruction of the middle class with the aid of a highly progressive tax.

Consider also government expansion in the field of public housing. As noted in the study, a vast bureaucracy has grown up around the government's entry into the housing business over the past 20 years. Under the Public Housing Administration, we have something like 900 local authorities administering low rent public dwelling units. During this Session of Congress, we passed another housing bill costing the country $1.95 billion in housing funds.

Federal expansion in housing has come in spite of the fact that members of the real estate and building materials industries say that public housing not only is costly to the taxpayer who puts up the subsidy but that the original construction costs are higher than they would be if the projects were sponsored by private groups.

There is evidence to show, according to this study, that the government's role has not contributed to the long-term stability of the residential construction industry and cost reductions are not apparent.

But the danger comes from another direction. With public housing as with free public anything, there is always a tendency to increase the number of persons eligible to benefit and to expand the area of authority. This tendency is very often accentuated when there is a possibility to attract votes. The continued subsidization of housing for the lower income groups may eventually extend to government housing for the middle income group, which is increasingly feeling the burden of taxes and unable to pay its own way. There is already much pressure on Congress for assistance in the construction of middle income housing. Obviously, should this be done, the votes of those who qualify will be extensive.

As this study further states, what could represent less freedom, less privacy than the process through which an applicant must go to qualify for residency in public housing: Investigation of his credit, his job, his living manners, his tax records, the size of his family and his income.

In public housing projects it is the rule that a tenant's income may not increase more than 20 per cent over the income earned at the time of his acceptance. There have been instances when occupants of housing projects refused over-time work and promotions for fear of being made to vacate their government homes.

Federal Credit Activities

Turning to Federal credit activities, today the Federal government lends directly $1.00 for every $5.00 lent by private banks. The pressure to increase the amount of government lending and to expand the areas covered seems to be rising.

The fields in which the government carries out loan programs are housing, agriculture, loans to business, foreign investment, and inter-governmental loans.

The many Federal organizations handling these fields are free from many state, local and in many cases, Federal staxes. Thus, these agencies have an unfair competitive advantage over private enterprise.

Where the private lender is concerned with earning a profit and feels

an immediate responsibility for the disposition of his funds, these motives are absent or less compelling in the Federal official.

Firms or individuals who cannot meet the credit standards of private lending agencies receive an unfair competitive advantage if they are then granted a loan by a governmental agency. Thus we see standards for loans becoming weakened, political considerations begin to play a part, and the door is opened for Administration laxities, favoritism and even corruption.

In the field of agriculture with price support and acreage control policies, we have gone a long way toward robbing the farmer of initiative and efficiency. And, in the process, we have piled up tons and tons of surplus farm products. The Legislative Reference study estimates that warehousing charges for the surplus are costing the American taxpayer $1 million a day. The study also cites a Department of Agriculture estimate that surpluses in 1955 depressed farm prices 20 per cent below what they would otherwise have been and that farmers lost about $2 billion as a result.

The study observes that when a commodity is produced for the government rather than for a growing market, the producer almost inevitably finds a ceiling place on opportunity.

The Legislative Reference Section of the Library of Congress study also explores the adverse effects of other Federal programs, including Federal aid to education, the weakening of state rights through grants-in-aid, and the adverse effects of Federal reclamation and the government in the electric power business.

Domestic Socialism

In the above, I have gone into detail to illustrate the insidiousness of the domestic brand of socialism that is enveloping us—misuse of the power to tax, transferring the function of capital from private hands to the state, increasing control over the citizen's dwelling unit, the possibility of greater control over the education of our children.

There are, of course, more direct forms of government encroachment than these.

When I was chairman of the Senate Appropriations Committee, we made a survey of more than 1,000 different business activities in which the U. S. Government was engaged.

The Hoover Commission, while I was a member, made a survey of more than 3,000 such operations. These included furniture making, clothing manufacture, saw mill operations, dry cleaning, rope making, synthetic rubber plants, ice cream factories, and electric power development.

Government in Business

In May, 1956, the Budget Bureau revealed the astounding information that the Federal government owned 19,711 business-type facilities which it operated or contracted with private parties to operate. The total Federal investment was 11.6 *billion* dollars. This is production only for the use by the government itself and not for sale to the public. In yet other fields, such as electric power production, it competes by sale to the public.

It seems to me that the use of tax money by the Federal government for activities which compete directly with its own taxpayers is indefensible. Such operations, if carried to the ultimate, would mean government ownership of all the means of production —we would all be working for government.

In my book, that is socialism, and though it is a hard word to some, let's have the courage to face it.

Republicans believe that private industry and private initiative should be allowed to function under competitive conditions. That system has proven the best yet devised to produce the goods and services men need, to provide jobs, and to raise the standard of living.

Because we Republicans saw in these thousands of government-run businesses the seed of socialism, we have taken steps to terminate them. Steady progress is being made.

Since Republicans took office in January, 1953, the Defense Department alone has discontinued 274 commercial — or industrial - type operations; has curtailed 50; has in process of discontinuance or curtailment 63 more; and has scheduled 161 operations for discontinuance or curtailment—for a total of 548 commercial or industrial activities the Defense Department has acted upon.

In addition, 958 operations are still in various stages of review by Defense officials to determine whether they can be eliminated.

Elsewhere in government, 145 out of 289 strictly civilian-type manufacturing activities have been terminated or substantially curtailed since an inventory was completed a year ago.

In many cases, the Administration was able to take action on its own. In the case of liquidation of the RFC, the sale of synthetic rubber plants, and disposal of Inland Waterway Corporation properties — legislation was required, and the Congress so acted.

It is not an easy task to get rid of government activities, and it is not an easy task to hold the line against further government enroachment. Neither is it an easy task to reverse the trend toward socialism.

Those of us who have warned against moving too fast and too far in the welfare field have been maligned as heartless pinchpennies.

What we have tried to do is to inject reason and balance in government programs involving benefits to individuals in this country. We have stood firm against having the government undertake more than even this wealthy Nation can support—but we have not always won our battle.

I believe it is morally wrong for the government to promise more than it can deliver. It is wrong for the government to pledge benefits to the American people and then set up an unsound system for financing these benefits.

But those of us who have fought for safeguards to protect the American people have been subjected to much abuse because we dared to point out there is no pie in the sky.

The Electric Industry

I have waited until now to say anything about the electric power industry because unquestionably your industry is in the front line of defense against expanding government. You will be the first to succumb to government unless we can reverse the present trends. You face a terrific struggle, for the proponents of Federal power are many; they are dedicated and they never rest.

When I was first elected to the Senate in 1937, 2.4 per cent of the Nation's electric capacity was owned by the government. Your companies owned 89.7 per cent and other public bodies owned 7.9 per cent. In the intervening years there has been great

expansion in the electric industry but a disproportionate share of that expansion has been in the Federal power field. Last year, 15.3 per cent of the power capacity was Federal, while your share had dropped to 75.5 per cent, while other public bodies owned 9.2 per cent. In 1937, the government owned 1.7 million kw of steam capacity, or 6¾ per cent of the total steam capacity in the country. By 1957, their share had increased to 13.4 million kw of steam capacity or nearly 13½ per cent of total steam capacity.

It would be serious in any basic industry, be it steel, or coal, or transportation, if government assumed such a high proportion of activity. But electric power is the single, most essential factor in our Nation's productive capacity. Government activity in this industry can lead surely to disastrous consequences. You know what Lenin said in 1920:

> "Communism is the Soviet power plus the electrification of the whole country."

Yes, there is no doubt that your industry is the first target of the government ownership advocates. The implications of the various drives in this connection, however, spell trouble for our whole free enterprise system. Let me illustrate.

TVA

I don't have to tell you the facts about what has happened and is happening in the TVA region. I am sure you are all thoroughly familiar with these unpleasant details. What started out primarily as a flood control and navigation project has become the largest single power producing agency in the country.

Government investment in power facilities derived from appropriations totals nearly $1.2 billion, after repayment of $175 million to the Treasury.

Whereas power operations were to be incidental to flood control and navigation in an area roughly 40,000 square miles, today power operations are the paramount activity of TVA in an area of 80,000 square miles.

Having exhausted its hydro potential, TVA went into steam power generation and this now constitutes over 75 per cent of its total capacity of 10 million kw.

I want to examine though, the broader implications of what is taking place there today.

The first of these is the establishment of state capitalism through the revenue bond proposal. This state capitalism obviously sets up a precedent for similar organizations in the Pacific Northwest, the Missouri River Basin, the Southwest, and who knows where eventually. These state corporations first will engulf your industry and with the pattern then well established will be used for gas, oil, steel, coal and no doubt many others.

Here is another example of what I meant by the insidiousness of the danger that confronts us. Many persons even in high places cannot see the pitfalls in the revenue bond proposal.

The revenue bond proposal is unsound in principle, but if it is adopted for the TVA there should at least be provision for these safeguards:

1. Clearly defined area limitations keeping TVA's service area where it now is.
2. Maintenance of control by Congress and executive agencies over the issuance of bonds by TVA.
3. Full recovery of present and future Federal investment plus actual interest cost and adequate payments in lieu of taxes instead of the present token payments.
4. An end to the sole supplier clause of TVA contracts which prohibit TVA customers from seeking power from any other source.

But, regardless of safeguards, the revenue bond arrangement is still bad government. It opens the way for a series of free-wheeling government corporations, out from under the watchful eyes of Congress free to raise their own money, and very likely to become drunk with their own power.

This formula also puts the seal of approval on government in business but in such a way that the government will be competing with itself for money from the people.

REA

The Rural Electrification Act was passed no doubt with the best intentions in the world and obviously without any awareness in 1936 of the complications it would present in 1958.

The electric cooperatives formed to take advantage of the benefits available under the Rural Electrification Act, also in most cases were formed with the best intentions in the world and, in the past, have made a real contribution to the advancement of rural life.

I know that many of you get along well with the co-ops. They are your neighbors, and you help each other as good neighbors should in times of emergency.

Today, however, a disturbing change is taking place in this program.

When REA was established, it was with the intention of bringing power to uneconomic customers largely in the rural areas of low customer density where private enterprise could not economically render service. This function REA has fulfilled and fulfilled well. I am sure you all know the statistics. Over 95 per cent of our farms now have central station service and Rural Electrification is now more concerned, and rightly so, with improving its service.

Having reached this stage, the REA co-ops are now turning to new fields which have nothing to do with original concept of REA. Already the income of co-ops is more than 50 per cent from non-farm customers such as industry, commerce, and non-farm residential. Bear in mind that this electricity is being supplied with the aid of Federal loans at 2 per cent interest. The electric co-op, therefore, is in a favorable position to undersell your companies in going after this non-farm business.

Non-Federal REA Financing?

As you are aware, the Administration this year proposed that the time has come when REA co-ops should seek non-Federal sources of financing. You are also aware of the frenzy of opposition that has been whipped up to this proposal by the co-op leadership.

We can see the reason for this frenzy when we look at the figures.

Appropriations for REA electrification loans totaled $13.9 million in 1936. By June 30, 1957, total appropriations had reached $3.7 billions.

This year, Congress more than doubled the Administration's request for loan funds for fiscal 1959, setting the figure at $317 million. For fiscal year 1958, Congress voted $179 million in loan funds. The REA Administrator, David Hamil, has estimated that within a generation the rate of REA electrification loan needs will be running at $1 billion a year.

Naturally, $1 billion a year of 2 per cent loan money is a nice thing, if you can keep it, and this is just what the co-op leadership plans to do.

Combined with this insistence on prolonging the use of below-cost Federal money to finance expansion and the exclusive right to buy below-cost power from subsidized Federal power projects, there is the concerted mad effort on the part of a few electric co-op leaders to establish the Federal tax-free REA co-op as the true symbol of free enterprise.

Your companies have repeatedly been attacked as "profit companies," and as monopolies. At the same time, the co-op is held up as representing authentic free enterprise.

This attack on the profit motive is disturbing for the profit motive has been the force in our lives, our system, our history always at work pushing this country to an ever higher state of development.

Eliminate Profit Motive?

This motivating force is so much a part of our lives and traditions that inevitably one must question the purpose of those who would do away with it.

A few years ago, Bernard Baruch wrote a brief and penetrating little book called, "A Philosophy for Our Time." Part of the book is a plea for better understanding by the student body of his alma mater, City College of New York, of the role of business in our national life.

As to profit, said Mr. Baruch:

"Only if men's labors show a profit—that is, they yield more than is put in—can society and each individual member have the means for material progress. To produce at a loss leaves less to share. Put me down as old-fashioned, if you will, but I still believe that a profitable enterprise contributes more to civic virtue than an unprofitable one."

Mr. Baruch went on to ask what are the alternatives to the profit system. One alternative, he said, would be to have men work for the love of their labors or out of a sense of service to others. But (and I quote again), "thus far in human experience, no community has ever been able to hold together long behind this ideal."

Loss of Freedom Resulted

The other alternative to the incentive of profit, he continued, "is to force men to work by order of some higher authority. Wherever it has been applied, it has meant a loss of some freedom. At times it has reduced men to slavery."

"The profit motive offers a form of incentive that does not rest on coercion. In this respect it is a vital mechanism of personal freedom. That the profit system emerged as part of a revolt against excessive governmental authority was no accident, nor was it accidental that there flourished along with it a degree of personal freedom never seen before."

The path down which the co-ops are being led today is a classic example of a privileged class whose privilege is dependent on government bounty, becoming entrenched and seeking to extend and expand their privilege at the expense of the rest of the Nation.

I put the blame for this state of affairs squarely on the shoulders of part of the present electric co-op leadership. I find it difficult to believe that the great majority of America's farmers who are co-op members are not confirmed individualists who would turn their backs immediately on this situation if they could see clearly where it is leading.

When we take a close look at this co-op leadership, we see a strange situation. We see this electric co-op leadership working hand-in-glove with those elements of labor which would nationalize all industry. We see it working side-by-side with those elements which would nationalize your industry. We see it loudly proclaiming non-partisanship yet being blatantly partisan. These things are not characteristic of our farming or rural people.

Atomic Energy

Perhaps nowhere more clearly than in the case of atomic energy have our welfare state advocates revealed their motives. Enough time has now elapsed since we began talking peaceful application of atomic power to gain some perspective on the events which have taken place — mostly in Washington.

You will recall that no sooner had we made the decision to concentrate our efforts on the development of the peaceful application of the atom when the advocate of Federal power pounced on the atom as a source of energy "belonging to the people."

This was how they justified the development of Federal hydroelectric projects. But our hydroelectric potential — at least, that which is economically justifiable — is almost exhausted. The atom, therefore, represented to them a heaven-sent opportunity to branch out in a new direction.

Congress has managed to blunt this attack for the time being and it is well that we have been able to do so. I shudder to think of the bill that would have been run up by now and to which future generations of American taxpayers would have been committed if we had undertaken the proposed program of atomic power plants which could have produced power only at from three to six times the cost of conventional power.

I don't have to reiterate the many and various and devious justifications advanced by the Federal power advocates for Federal development of the atom. One cannot help asking what has come into our society when such people choose to turn their backs on the record of American industry and choose in its place the bumbling hand of the Federal government.

Legislative Attrition Against Electric Industry

In addition to such broad fields as I have discussed—TVA, REA, Atomic Energy—we also see a steady process of attrition on your industry by other legislation.

Sometimes it is seemingly innocuous, such as Senate Resolution 148. This resolution changes the procedure for evaluating water projects to make it easier to justify Federal construction of non-economic projects.

Sometimes the attrition process is buried in a bill, such as the Omnibus Rivers and Harbors Bill which the President vetoed. Sometimes the attrition only takes the form of a staged Congressional hearing.

The fact is, however, that there is a never-ending drive to circumscribe the electric power industry, to weaken it, to make it more difficult for you people to remain in business. Your opponents are even, as you know too well, now trying to force you to keep quiet and not talk up in defense of your industry.

The total picture this presents is one of political regulation of an industry outside the legal structure of regulation.

United States and Soviet Power

During the past five months the Federal power supporters have ad-

(*Continued on page* 207)

Better Selling Is a Must

By C. A. Tatum, Jr.

President and General Manager, Dallas Power & Light Co.

An address before the Twenty-Sixth Annual Convention of the Edison Electric Institute, Boston, Mass., June 10, 1958

SINCE there are many company presidents and potential company presidents at this meeting, I believe it will be appropriate to tell you about a vice president I know.

He is vice president of an advertising agency.

As such, he was and had to be continually concerned with sales and promotion.

So he decided to write an article on selling.

He wanted to make the point that the rewards for good selling can be tremendous in money and advancement. The title he picked for the article was: "How to Get to Be President."

He was working on the article at home one night when his small daughter walked up behind him. Over his shoulder she read the title aloud —"How to Get to Be President."

Looking at her father, she said, "If you know how to be president . . . why aren't you?"

Many of you obviously knew how to get to be president.

And business being what it is, few company presidents in our business got there without knowing a lot about selling—selling *things* or selling *ideas* or selling *programs*.

Indeed, the history of the electric industry has been marked by some of the most aggressive, effective salesmanship any industry has seen.

Another Viewpoint

On the other hand, our industry could double every 10 years or every nine years or every eight and too many of us might actually still be doing a pretty mediocre job.

And here's the danger—mediocrity eventually catches up with you.

This brief story illustrates this point.

For years Capt. Liddell Hart, the famous British military historian, has been studying the great military campaigns of history, from the time of the Phoenicians down to today.

C. A. TATUM, JR.

He was finally struck by a pattern which, he observed, happened again and again.

A military leader would emerge. He would have too few men, or too little equipment, or too little time. So he'd be forced to use his head, to overcome his bigger and stronger adversary.

He would resort to ingenious and imaginative ways to gain his victories.

He would try to divide his enemies and take them on one at a time.

He would avoid knock-down-drag-out engagements. And, more often than not, he would win.

Then Liddell Hart found, when this general grew big and strong, and had plenty of men and munitions, he gave up using his head, forgot his resourcefulness and relied only on his size and strength to accomplish his objectives.

And more often than not he'd lose.

That even happened to Napoleon.

It seems to me we might well take note of what happened to the general. For a long time now, the electric industry has had the wind to its back. We are the "front runners."

Maybe during this time we haven't had to use our heads as much as we once did.

Maybe that has given other industries the opportunities to move up in some areas.

But I can't help thinking back to the selling job done by the electric industry in the past . . . on the many things which have turned into great load builders.

Let's consider just one—automatic laundry equipment.

There was a time when a woman could buy a perfectly good electric washing machine of the early type for around $50. Then the industry came along with the idea of the completely *automatic* clothes washer as we know it today.

Could it be built for anything near $50? Of course not. It had to carry a price ticket in the neighborhood of $250.

Did that stop the electric industry? You know it didn't. The utilities and manufacturers got together and made that automatic washer so desirable that women raised their sights from $50 to $250. That was a good sales job.

The success of that campaign paved the way for many of the appliances which are now so important to the American home and to the utilities.

I don't have to remind you who "nursed" electric refrigeration into wide use . . . or who sold electric light bulbs, almost door-to-door, years ago.

New Markets Important

Now I am aware how preoccupied we all are and have to be with capacity, and construction, and taxes, and rate of return, and the cost of money.

But finding and creating new markets for what we have to sell is one management function—an important one—to which many of us currently cannot point with pride.

How many of us know the detailed sales plans of our companies? How

many of us have examined the philosophy behind the budgets of our sales departments?

Chances are, your sales manager is not doing half the job he knows how to do, or wants to do.

If your company is typical, he's operating within budget and manpower limitations that were too small 10 years ago, and certainly inadequate today.

What would happen tomorrow if you called in the head of your sales department and said: "If you had twice as big a budget, what could you do to increase the sales of electricity in our markets?"

You might be surprised.

The rewards could be startling.

You know, we are in a unique position. Any of us here today could pick any one of those low-saturation appliances and merely by deciding to do it, could start the planning and programming that would double or even triple the sale and use of that appliance in our territories. *Just by deciding to do it.*

We have that sales potential in our hands.

Specific Sales Planning Necessary

But, in order to carry out that decision, someone will have to do some very specific sales planning.

This year about 16 million kilowatts of new capacity will be put in service. Of this amount approximately 12½ million is being added by the electric companies. This is the greatest capacity increase ever added in one year, and represents approximately $4 billion of our companies' money. This must be put to work. To do it, we face a marketing job—for which better selling is a must.

What we have to sell, of course, is the time of our generators. We cannot store our excess capacity. So—let's sell it—as much of it as possible, and convert it into profitable revenue.

Two broad avenues are open to us:

First, we can induce our present industrial and commercial customers to give us more business.

I don't mean that we can induce present customers to buy more electric power than they can use. But we can do more than most of us are doing to give them reason to buy more power.

The one thing, more than all else, which will help our customers use more power is automation—or electrical modernization of plants.

A great many forces are at work right now to promote the automation or modernization of plants. I think we, as an industry, can do a great deal more to push this idea.

A number of years ago, when automation was more of a novelty, one power company in the East flew an airplane-load of executives out into the Midwest to see a model plant.

To really make this idea work for us, we should fully organize our own people who know something about automation, and send them into the plants on our systems with an aggressive program for modernization.

We simply need to do a more imaginative and creative sales job.

Second, a truly great opportunity beckons to us in the residential field, including the existing home market. This is a field which is most productive of net utility revenue, and which is less susceptible to economic readjustments.

Yet here is a market which really needs attention. The rate of increase of residential load has begun to reflect this lack of attention during the last year.

Development of this market in the future is a job that we must do to a greater extent ourselves.

The electrical manufacturers are convinced that to meet today's situation, our industry should provide more initiative, more promotional leadership and more promotional money.

Unquestionably we have benefited from the excellent national advertising of our manufacturer allies.

Appliance manufacturers are being caught in a cost-price squeeze which leaves them with a profit of around 2 per cent on sales. Consequently, they point out, any additional spectacular promotional surge at this time must come from elsewhere.

Concern of Distributors, Dealers

If distributors and dealers do not seem to be too enthusiastic about selling electrical appliances exclusively, we cannot be too critical. Their concern is not logically with kilowatthour sales, but with making a merchandising profit, which is getting harder and harder to do.

It is estimated that the typical distributor is operating at a net profit of less than 1 per cent, and a typical dealer at less than 2 per cent. Hundreds of dealers have gone out of business. The remaining ones say, in effect, that if you want this market developed, we must have more support from you.

We still have friends in the exclusively electrical manufacturing field. But even these are getting more than a little disheartened over our apparent lack of interest in merchandising, particularly in view of the job being done by the gas industry.

So we have these two broad avenues open to us—the industrial-commercial market, and the residential field, and they are wide-open expressways to greater sales and profits.

What we need—in my opinion—to speed our progress in the right direction down this inviting road is a great, inspired and sustained selling effort for the industry—a dynamic program of market expansion, the greatest display of selling enthusiasm ever seen by our organizations and our industry.

Powers Urges 'Bold' Program

Quoting the words of Phil Powers before the EEI sales conference in Chicago a few months ago:

"We need a bold program that will sell every conceivable beneficial use, with opportunity for individual companies to pattern their effort to particular needs, a program that will result in a constantly improved load factor on facilities and stations, that will diminish the fluctuations in earnings with seasons and economic conditions, that will provide more rapid growth than in the past by running ahead of gas and other competition; that will produce a higher degree of diversity; that will make for assured and sustained profits; and that will improve customer, employee and public relations."

We have seen what better-selling campaigns have done in other fields.

There is no need to point out what has been achieved by our friends in the gas industry.

This example simply proves once more the power of concentrated selling and should fire our imaginations as to what might be done by the electric industry.

There are no shortages of anything we need to do this job. There is

an abundance of appliances, and plenty of materials for building. Consumers have plenty of money in the bank. We don't have to be afraid of selling ourselves into a serious capacity or distribution problem.

Survey after survey shows that consumer acceptance of electric appliances is at an all-time high. Customers want more electric kitchens, air conditioning, color television, washers, dryers, and every other appliance that makes housework easier and their homes more livable.

Home Lighting Poor

One manufacturer reports that their survey shows the average home has 25 per cent of the lighting it needs and kwhr use for this purpose alone can be increased 50 per cent in the next four years.

The only shortage that could possibly hold us back is lack of real determination to get the job done; lack of faith that it can be done; lack of inspiration and enthusiasm to get it done.

But that determination, that faith, that inspiration and enthusiasm must come from you. It must be transmitted by you to your own companies to get the job done on the local level. By the same token it is only through you that the job can be done on the national level.

To start the ball rolling on the local level, let's tell our sales departments to prepare an ambitious, farsighted, long-range program of selective selling, designed to load our systems economically and thus aid in sustaining low rates, and with sales goals set much higher than ever before.

What services we decide to promote, of course, will be a matter for local determination. But the field appears to be wide open.

Any such program, soundly conceived, ought to be one good for a five-year effort. Then—since on-again, off-again promotions are wasteful—let's keep to the plan, regardless of the shifting business climate; regardless of whether selling is tough or easy in the future.

Next, let's be prepared to invest a lot more dollars in sales and advertising. We once invested a dollar to get a dollar of new revenue. Today we spend about 30 cents, which buys about half what 30 cents formerly did. Thus, our program has been gradually decreasing, while that of other industries has been increasing.

Roughly 1.6 per cent of our gross now goes into promotion. This figure should be reviewed and revised, as an elementary first step in capitalizing on this tremendous opportunity.

We need to recognize this as an investment in our future, an investment that is just as important today as the investment in new capacity was yesterday.

It may be hackneyed to say it, but the way to make money is still to spend money wisely—an idea that our competitors for the consumer's dollar have already been heavily underscoring.

Third, let's increase our sales forces, and improve their caliber. Let's see that they do a better selling job in areas where we need it most right now. Then, let's keep up an active interest in all the problems facing our sales departments, and keep on giving them the support they need and deserve.

Finally, on the local level, let's get all our employees in on the act. Let's tell them what we are thinking, what we are up to. Let's sell them harder on the company, and make them eager to sell our company ideas to the public. In other words, let's transform our employees into enthusiastic, effective crusaders for the electric way of living. They can help do the job.

Employees as Salesmen

In this connection we can, of course, make better salesmen of these employees—when they are talking with their neighbors—if we encourage as many as possible to use more electrical appliances in their own homes.

On the national level what can we do?

To begin with, I do not intend to sell short the splendid programs we have today. These have been performing heroically. But it is evident now that these programs are not enough.

Nationally, we need an over-all, industry-wide sales effort sponsored by utilities to capitalize on the present market and meet the many competitive challenges of other industries.

The fact is—our real competition is not just with the gas appliances. There's still plenty of business for both electric and gas.

Our most potent competition comes from the thousand and one other vendors of goods and services whose products for the moment may seem to have more sex appeal than ours.

A well-conceived national program will accomplish several important jobs:

1. It will provide a modern, efficient way to reach 47 million residential customers, at a minimum cost per customer.
2. It will help to maintain a receptive climate in which to launch our local sales campaigns.
3. It will encourage manufacturer tie-in and advertising support.
4. It will stimulate retailers to more effective sales support.
5. It will help meet the competition of national programs of other industries.

Program Must Be Backed

It is clear, however, that a national program cannot do a real job unless it is backed to the limit by all of us.

No matter how aggressive is the competition in the future, we can meet and beat it. Because we have the best product. We know we have the best sales story.

We will tell that story more dramatically. Tell it more often. Tell it more forcefully. Tell it to more people—and make them see it as we do.

Maybe at this point we have lost a round. Maybe we look a little groggy to some people. But now's the time to get up and come back swinging with our own Sunday punch.

Sure—our competitors are doing a good job. They have made real progress. But they have also done us a favor, if their successes prove to be the spark which fires us into more aggressive action.

It isn't like this industry to take a back seat to other industries in energy, imagination, ideas, or anything else; to neglect our obligation in any fashion to any segment of the public we serve; or to be anything but the best in everything, including salesmanship.

But there's no doubt about it. Facing us today, as we look toward the position of leadership our industry deserves, is a problem that calls for prompt and effective action.

It's a problem we must solve. We must solve it—and we can solve it—with better selling.

Health Is Also Your Business

By Sara M. Jordan, M.D.

Director, Department of Gastroenterology, The Lahey Clinic, Boston, Mass.

An address before the Twenty-Sixth Annual Convention of the Edison Electric Institute, Boston, Mass., June 10, 1958

IN a meeting of this kind it is perhaps good business to have a short surcease from the technical considerations of your fascinating world and to give thought to what actually should be your first order of private business: how to stay healthy.

The sound body that does the bidding of the sound mind keeps you men able to hold your jobs. It is the *deus ex machina*, the producer and the promoter of the drama of life. Yet if you take an inventory of your activities, most of you will, I am sure, find that you take your body for granted. You don't give it even the attention that you give your automobile. Yes, you eat and sleep when it says you must, but the tender, loving care which it should have to improve and prolong the activities of your lives is too often neglected in the interest of getting other things done.

Management of the Body

The form, strength, and endurance of your body are dependent upon two things: your forebears who provided the genes and your own management of what they have given you. It would be nice to choose our forebears —the world would be, at least at birth, populated with the soundest minds in the soundest bodies. But since we have no say in the matter of what we are when we are born, our problem is to manage and care for what we have been given in bodily and mental capacity.

Now let us take a quick and very superficial look at what these bodies of ours, these masses of protoplasm, are and what they do for us.

Our bony framework encases the brain and central nervous system within its skull and spine. The multiple bones of the extremities make it possible for us to walk, work and play by the soundness and flexibility of their joints. The chest cage and the pelvic bones encase and protect the organs of breathing, circulation, digestion, elimination and reproduction.

All these functions are made possible through the work of muscles, glands, absorbent and connective tissues formed by billions of cells which make up the various organs and are constantly nourished by circulating blood in vessels of varying size. The muscles of our body also vary in size from the large ones which let us walk and run, to the tiny ones which line the blood vessels and nerve sheaths. The masters of all this mechanism are the brain, nervous system and glands of internal secretion and to you, engrossed as you are with the mysteries of electricity, I say in the vernacular, "You ain't seen nothing" when you compare your field with mine.

DR. SARA M. JORDAN

The workings of these bodies of ours are only partially revealed even after centuries of intensive studies of the living and the dead. But what we do know awes us and spurs us on to more intensive investigation into the still unexplored mysteries of what makes us tick and stop ticking. Most of all it makes us as physicians eager to protect that wonderful mechanism and to keep us all alive and active as long as possible.

Medicine can, with due modesty, take much credit for keeping us alive longer by 20 years than the men who lived 50 years ago. This longer life is one of the major phenomena of modern days. But those extra years are of no use unless we live them happily. And no life is truly happy unless it is lived in a healthy body, at least a body that is as healthy as is compatible with its age.

Incidentally I predict that all your business standards of the age of retirement will be advanced as human beings demonstrate their ability to stay almost as healthy and to think more wisely in their seventies than they did in their fifties. The slogan about giving the young a chance will still be a good one but the definition of "the young" will be advanced and their period of activity lengthened so that they will still have their chance to be top man in an era when those we now think of as old will be longer in the saddle.

For Young and Old

Both the young and the old must be taught how to view this longer and better life. The old are already there and the young must shun the obituary page until they get through those extra promised years. They must also be ready to enjoy that last wonderful lap in the race. And to use that word "race," let us consider how we can run it in the best possible form, not like the tortoise and not like the hare, but like a homo sapiens, a man of reason, who knows that his body is the most remarkable mechanism he has ever contemplated and that it should serve him long and well, if he serves it in the same way.

The brain and nervous system are, to use your vernacular, I hope correctly, both the powerhouse and the distributing stations of our activities. In collusion with those secretive glands of internal secretion whose master is located in the skull and is called the pituitary gland, the brain and nervous system control the mental and physical activities and the accomplishments of our lives. They spark our energy and transform thoughts and impulses into deeds and

so in fact they chart our life's activities.

To the protection of that brain and nervous system, then, we must direct our attention if we are to be efficient. It is of no use to be brilliant, educated, and well trained for your job if your brain is fagged and your nerves are exhausted. And by care of this all-important center of life we protect the other systems of the body to all of which the nervous system is intimately connected and attuned.

Drs. Diet, Quiet, Merryman

Protection of the powerhouse, the brain and nervous system, can be given in several ways. There is nothing new about the advice I am going to give you. Three and a half centuries ago a Latin treatise was written in England extolling the virtues of diet, rest and diversion. In fact, these three measures were given medical degrees by that writer and a century later by Jonathan Swift who described them as Dr. Diet, Dr. Quiet and Dr. Merryman. We have no better way to teach you how to protect and increase your precious legacy of health than by letting those three doctors talk to you on the subject of diet, rest and diversion which they personify.

It might be an easy matter to convince ourselves of the benefits of good care if we could look into our bodies each day and see that our hearts are not struggling too hard and that they have their normal size and shape and are not enlarging or beating away at an abnormal rhythm, that our delicate lung cells are not changing in their capacity to take in air and send out through the blood enough oxygen to keep all the body cells alive and that our marvellous digestive tract is running smoothly and efficiently because it is getting just the right quantity and quality of food. Since we cannot look in and check on this behavior of our internal structures, we usually assume that all goes well unless we have pain or distress, devastating fatigue, unusual shortness of breath or strange evidence of blood escaping from our body at some point.

The truly healthy man has none of these evidences of mishap; in fact he is completely unconscious of all the superb chemistry and mechanics which are going on within his body to keep him alive and active. He is conscious of his body only when it tells him he is in need of food, water or rest and when elimination of the products of kidneys and digestive tract is imminent.

This unconsciousness of internal bodily activity is not a guarantee that all is well, for especially in middle and later life there are insidious beginnings to serious disturbances which sometimes unfortunately come to light only when they are so far advanced that palliative measures alone can be used. I speak, of course, of cancer, the human blight which we hope will be conquered soon, and of the fatal heart accidents which sometimes come without forewarning. Our best protection against such disasters is an examination at regular intervals, especially in middle and old age —an examination which is sometimes very rewarding, but all too often the treacherously insidious onset of certain diseases of fatal character may escape even such protective measures.

Those conditions are at least to some degree in the lap of the gods—like the deluge and the hurricane. But we do have controllable measures to preserve the health that has been given us.

Dr. Diet of our trio of medical advisers has never been held in as high esteem as he is today. We know more than ever before about the importance of using enough protein to rebuild the body cells which are constantly being destroyed, enough carbohydrate to help this process of upkeep and enough fat to give the body tissues padding and support but not excessively so and to supply calories in small packages. Meat, fish, milk, eggs, cheese, cereal foods, vegetables and fruits are instinctively chosen by the healthy man and when properly prepared and eaten in suitable quantities they furnish the kind of nutrition the cells of the body want and need.

Digestive Process

Let us take a quick look at the digestive tubes which transform those food materials into the chemicals that the body can use. It is a most complicated and exquisitely coordinated structure operating by the mechanics of its muscle layers and the chemicals of its secretions; its various parts are formed structurally to hold, divide, change chemically and propel the foods chosen and put into it by our own conscious volition. Then with another remarkable process the results of the complicated digestive processes are absorbed and transmitted to all the cells of the body.

Our appetite is part of this mechanism; it tells us when we must eat and if it is guided by the conscious mind, it will serve us well. Fortunately, it can be so guided into grooves of good habits but it is also true that our social customs center around the pleasant function of eating and may sometimes lead us astray.

Overeating Causes Obesity

By all the channels of communication — radio, newspapers and television—we hear of the evils of supernutrition and the harm it can do to our hearts, arteries, digestive tracts and our morale. The fat man or woman who listens to or reads this information is far from happy when he sees his shadow or his image in the mirror. His unhappiness is beneficent for it should make him correct those habits of eating which are, in the vast majority of cases, the cause of his obesity.

The word compulsive is much used by psychiatrists, particularly when referring to the alcoholic. It can also be applied to the inordinate or indiscriminate gourmand. The compulsive eater finds it as hard to resist food as the compulsive drinker to resist alcohol. In both cases the appetite, a normal physiological instinct, has been allowed to go wild—unguided by the master mind at the control station. The modern unpopularity of obesity ("nobody loves a fat man"—or fat woman) is good—it keeps many of us in good health.

Undernutrition is, in some individuals, a health menace, although not as often in need of correction in this land of good and plentiful food as is obesity. In the young, however, this evil of malnutrition also requires a guiding force.

There is much popular discussion nowadays of a fatty substance called cholesterol, an excess of which in the blood is associated with an unhealthy state of the arteries. Most patients are eager to know what their blood level of cholesterol is, and if it is higher than normal, to reduce it by a decrease in the intake of animal fat and dairy products. We still have much to learn about this complex matter of fat metabolism but from what we now know, the best advice seems

to be that if one is healthy and not overweight there is no need to curtail the use of butter, cream, and meat fats.

Our second old medical consultant, Dr. Quiet, also serves us well in these modern days. Rest is the handmaiden of medicine. Rest should be a planned part of each day, week, month and year of an active life. The modern means of communication and transportation have brought us a life easier in many respects than that of our forebears, but contact with other busy human beings and the noise of our cities have been so increased by these facilities that an escape from fellow man, telephone and crowded highways to the serenity and freedom of the out-of-doors is almost a necessity of life. We have a place in medicine for the artificial tranquilizer but it should not be necessary for the normal individual to use a drug to reduce the tension of his nervous system. God has provided the quiet of nature somewhere within the reach of most men.

The third doctor suggested by that wise man of three and a half centuries ago was Dr. Merryman and we may interpret his counsel to be the use of diverting hobbies and avocations which take their place with rest as an important part of modern life. Getting the mind away from the office is as important as getting the body out of it, and the ideal diversion consists of some form of relaxation which gives both mind and body an extracurricular interest. Sports in any form, especially if actively engaged in, are ideal for that purpose. Personally I consider golf a splendid antidote to the tension of the executive's life but other out-of-door sports like tennis, hunting, and fishing serve an equally worthy purpose. In preparation for the older years when something of real interest must supplant business activities, a diverting hobby —serious or frivolous—can be a godsend and a health preserver.

In these troublous times, with the constant subconscious fear of impending disaster, it is not easy to keep true gaiety and a hearty laugh in the program of the day. The gaiety of the cocktail party, firmly entrenched as it is in our modern social life, is too often an artificial substitute for wholesome fun. While alcohol is recommended by many doctors in very moderate quantities as a relaxant for arterial tension, we must remember the fact that from the serious study of the problems of alcoholism it is believed that *anyone* may become an alcoholic. That finding should keep those of us who believe in preserving our well-being from excessive use of that social poison. The habit can be a dangerous one. The other social poison, smoking, is such a controversial issue that I shall leave it to the statisticians who, to my mind, have piled up some formidable data on its relationship to cancer and heart disease.

I have made this discussion on your health a sermon and for that I apologize. I can only say that the modern doctor appreciates the superlative value of you men who work hard in the management of business, and we should like to keep you as fit as possible so that the wonderful institution of free enterprise in this great country of ours shall be continued by wise men who will reach that promised old age in a state of healthful happiness.

The Challenges to Free Enterprise

(*Continued from page* 201)

vanced a new argument to justify the construction of more and more Federal power projects. Very briefly, the argument is that the Soviet Union is adding kilowatts at a greater rate than the United States.

Now, this may well be true about the Soviet Union but the logic of trying to equate our growth in this field with Soviet Union growth escapes me. In all the arguments citing the Soviet progress one fact is always omitted, namely, to what extent is the Soviet citizen benefiting from the additional power.

We have no power shortage in the United States. In fact, we have ample power reserves. Our rate of expansion is such that it will continue to meet our needs and maintain these ample reserves.

Furthermore, we know why it is we are expanding our power capacity. It is to give our citizens more of the good things of life—more electrical appliances to cut domestic labor, more electrically operated tools of production, more automatic services —in short, to improve our standard of living.

Is this what the Russians are doing? If they are, I can't see any reason to be disturbed. Do we want them to remain peasants? Or do we want them to achieve a better standard of living and perhaps in the process of doing so become less of a menace to us? If, on the other hand, this rapidly increasing Russian power capacity is geared to the production of war weapons, then we have cause to be disturbed. But disturbed, not because of the power capacity, but because of the objective for its installation.

If we decide we need more power for military objectives, we can install it through our tried and proven channels of free enterprise. But you know and I know that this is not what many are thinking. They want more Federal power projects to provide more power for those privileged Americans who benefit from the preference clause. And, the larger this privileged class grows, the more difficult it is for you to fight back.

How do we meet this whole problem, the problem confronting you and your industry, and the problem confronting our entire economic system?

Partly the answer lies in the minds and the hearts of our people. But we live in an increasingly complex world and, too often, the effort required to learn the issues involved proves too burdensome. Even so, we have a responsibility to see that people do understand these matters. If the issues are understood, people will make the right decisions.

Your industry has a tremendous responsibility. Being in the front line, you have to make sure you don't go down. Those of us in Congress who know you and understand your problems will do our part. But our numbers are too few, they must be increased. And this brings us back again to the minds and hearts of people. They must be informed and know the issues at stake.

Here we all have a job to do. We must, in effect, "Each one, teach one."

Each one of us must teach another what we know about this issue. None can rest . . . till all our freedoms are made secure.

A wonderful world can be ours tomorrow. But, it is today when we determine whether we gain it through freedom or lose it through slavery.

Is Your Top Management 'Tops'?

By S. L. Drumm

Executive Vice President, West Penn Power Co.

An address before the Twenty-Sixth Annual Convention of the Edison Electric Institute, Boston, Mass., June 10, 1958

AT various times in the history of our industry the spotlight has been on the solution of problems in the fields of engineering, construction, financing, or marketing. Now it is timely to put the spotlight on operations improvement. Improvement in the conduct of every single phase of our companies' activities—the increasing of our efficiency through better management — presents a never-ending opportunity and a continuing challenge.

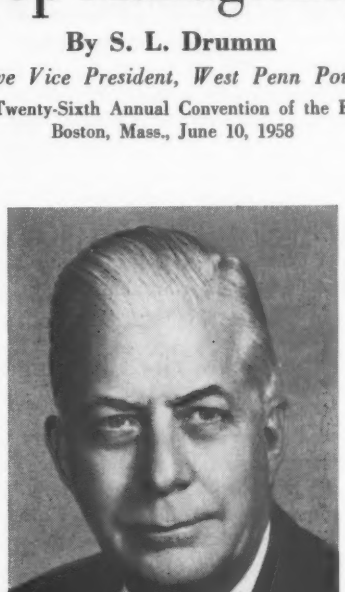
Efforts Must Pace Opportunity

This is not to suggest that we haven't been improving our operations, or that the caliber of our management has not been changing for the better. Not at all, because that would obviously be untrue. But it is to urge the importance of being sure that our approach is comprehensive rather than piecemeal, that we be quick to study the applicability to our companies of new methods and techniques developed by others, and that we actively search out improvements for ourselves. The urge is to make sure that the spotlight is there and that we are "farming" as well as we know how. In short, we must be alert to be sure that our efforts match the opportunity and the challenge of operations improvement.

To continue to compete favorably in the money market by obtaining operating results that will earn the support of the investor, an industry that continues to double in size every decade and that will need an estimated $123 billion of new money by 1979 should keep its management techniques razor-sharp.

Challenge of Future

An industry that is under unremitting attack by government power zealots should continually make full use of modern management tools and techniques to bring about such a degree of efficient operation, with concomitant low rates and good service as a firm basis for earning the support of the public, to enable us to say in 1979 as confidently as we are saying today—Power Is Our Business.



S. L. DRUMM

In an industry whose wages are largely subject to negotiation and whose prices are regulated, with a regulatory lag that works against it in these days of continuing inflation, methods improvement is an outstanding area in which management is free to move.

The methods used in our industry are constantly improving. That should not stop us from probing, in each of our companies, whether our own methods are fully as good as they can be.

We should ask ourselves whether our methods are good enough for today—whether we are searching out methods improvements and putting them into effect to the optimum extent. For example, are we, on a planned and comprehensive basis, updating our organization structure; programming the reduction of excess personnel; modernizing purchasing practices; thinking through our policies; establishing service standards; simplifying procedures; keeping our marketing methods updated; seeing that our engineering manuals, wiring rules, operating and maintenance standards, and personnel practices are free of barnacles; and making optimum use of labor-saving devices? Are we using controls that really tell us how our various company units and our companies as a whole are doing against our own established norms and industry trends, as the *sine qua non* for bringing about improvement?

Today's Methods for Tomorrow?

We should ask ourselves, too, whether our methods will be good enough for tomorrow and, if not, make ready for the needed changes. Our growth tends to make some methods obsolete. In the next decade we must add the equivalent of the electrical facilities that have been building for three-quarters of a century; in the decade beyond that, we face the prospect of adding facilities approximating twice those we now have, bringing our electrical size to about four times that of the present.

With this growth may come need for making substantial changes in organization structure and in assignment of responsibility for various functions, including line-and-staff responsibility, better communications, and increased codification of policies, procedures, and standards; need for engineering decisions based upon clear vision, readiness to change, and a long look ahead; and need for raising sums of money that dwarf what we are now raising.

Not Presidents Only

For a company to be out front in the methods it uses, its top management should work everlastingly at it. By "top management" we do not mean presidents only, but rather the entire upper-level team which includes most, if not all, of you. To attain optimum overall efficiencies, top management should constantly motivate, organize,

plan, prod, and control. Otherwise, such optimum efficiencies will not be attained. But with leadership and motivation, the search for better methods becomes part of the company's way of life. Don't you agree that that's the kind of leadership it takes to make a company's top management "tops"?

Each of us is fortunate in that, in addition to the better methods we ourselves develop, improved methods developed and tested by others are freely available to us through the trade press and our industry associations. Not all fit our needs nor are timely for our use. But many do and are. There are three generalizations that will bear emphasis.

Top-Level Structure Important

Probably no single thing is so important in assuring this kind of leadership as having the right kind of top organization structure. The span of responsibility of each member should be such that one person can handle it adequately. Responsibility for functions should be carefully assigned with like things grouped together and with a well-understood separation of line-and-staff functions. The top executive staff should be free of drones and should be made up of competent people well grounded in modern management techniques. In staffing the top organization, no one can afford the luxury of waiting for years for death and retirement to open the way for what we know must be done.

By conscious effort and by planning well ahead, the top jobs can be staffed with people who are really "tops." Using the most advanced techniques, it is possible to identify, at a very early stage, those men with the mental equipment, drive, emotional stability, and the other qualifications necessary to achieve managerial success. They should be given wise, progressive development over a long period of years; opportunity to exercise their capacity and to grow and progress; and rewards commensurate with their achievements.

The importance of having the right kind of organization structure can hardly be over-emphasized. It's the tree trunk on which the limbs and branches depend for support and sustenance. Without a well-rooted, strong, upright trunk you can't possibly have an outstanding tree.

So if we want the good management that alone can assure optimum overall results, the first generalization is that we look to our organization structure, particularly the top structure.

The second generalization is that the decision as to whether and how much we should decentralize should not be left to chance but should result from careful study and from having an eye to future needs. As we grow, it is likely that the trend will be toward more decentralization to put decision-making nearer the point of action in order to speed up decisions.

If responsibility is moved out toward the operating districts, care should be taken to move commensurate authority, and there should be the appropriate increase in accountability. If more decentralization is indicated, to get the full benefits line-and-staff responsibilities should be sharpened up; there should be adequate communications without stifling initiative and adequate controls without changing decentralization into abdication.

The third generalization is that to minimize errors, decisions that are made on a day-to-day and year-to-year basis should be made against a backdrop of studying and planning ahead in all areas of company interest and should be based on the best forecasts we know how to make. The way to more nearly assure that important long-range objectives are reached and that things we would like to have happen actually do happen is to plan it that way long enough in advance.

Beyond Five Years

We might well ask ourselves whether in our company we are attempting such planning on a sufficiently organized and comprehensive basis. Of course, all companies do planning of the three to five years' variety, and sometimes longer, especially in certain physical facilities such as generation and transmission. But we're talking about even longer periods and inclusion of such fields as marketing, personnel, accounting, financial, engineering, operating, and power production.

Top executives can't afford the time to put out the daily fires with hand extinguishers. But they should, through proper delegation, make available the time needed to build a fire-prevention program and a better-equipped fire department.

So the third generalization is that to help assure optimum results, we review the adequacy and comprehensiveness of our forward-looking objectives and plans.

New Methods

Now let us consider a few examples of some of the newer methods that might beneficially be used more widely. Some of them you are already using. Others may be of help to you. If you are not already doing so, you may want to consciously search out better methods that will increase your company's efficiency and to study them for use in your area of company responsibility. If you are the chief executive officer of your company, you may want to guide your staff in doing this. Don't you agree that this is an essential step in making your top management "tops"? Here are a few examples of modern methods used by all too few companies to reduce costs. While no company names are given, they are readily available.

Centralized billing on machines is now quite general, but it is only recently that machine posting of cash records at centralized locations has been developed. It mechanizes one of our most tedious routines, that of maintaining current daily records on the status of customers' accounts receivable. It involves daily posting, along with cash controls and balancing for thousands of accounts. One company with over 400,000 accounts claims a saving for its mechanical cash posting in 1957 of $50,000 from 1954 costs despite salary increases of 12 per cent. A second company with about 600,000 customers estimates annual savings of $150,000. A third with over 300,000 customers, which is now installing this method, expects annual savings of at least $50,000 with a possibility of substantially more.

Without adequate control the volume of office work continues to grow inordinately and the number of office workers along with it. In the humorous but provocative and popular book, "Parkinson's Law," the author states it this way, "Work expands so as to

fill the time available for its completion."

One answer to the problem of burgeoning office work is office work measurement which, although not an exact science, has become something of an art. Using the services of a consulting firm in applying office-work-measurement techniques, a large metropolitan utility has reduced its office personnel by one-seventh despite a 10 per cent increase in work load.

Rough work measurement of the do-it-yourself variety in a clerical section of a Northeastern utility in which twenty-six people were studied indicated that the work could be done by twenty people, a 24 per cent reduction. The work force is already down to twenty-two, with a substantial improvement in morale because most people like to be fully loaded with work. The reduction was carried out through normal attrition or by transfer, so that no one was discharged. Imminent retirements of two people will complete the personnel reduction.

In a talk entitled, "The Long, Hard Fight to Control Overhead Costs," Richard Neuschel, of McKinsey & Co., gave examples of office personnel reductions of 40 per cent, 50 per cent, and 12 per cent, the last associated with a work increase of 25 per cent. He stated that each of these companies is a leader in its industry, with a sound long-term earnings record and a reputation for being well managed. Then he made this striking statement, "It has been my experience and that of my associates that there are few companies of any size which do not have hidden savings opportunities of at least 25 to 30 per cent in their overhead costs." Whether or not this quotation is applicable to utilities, we cannot overlook the opportunities for cost savings in office work.

Inventory Control and Savings

Inventory control is another fertile field for savings. Almost all electric companies have what they call inventory control, although in many instances it is only the setting of maximums and minimums on the various stock items. Does the inventory control system in your company recognize such factors as the cost of carrying material, of processing an order, of economical order quantities, of obsolete material stocks, and other costs?

In one company with three years of real inventory control behind it, there has been an adjusted price decrease in inventory value of $800,000, or 18 per cent, with approximately another $500,000, or one-third, reduction in capitalized stock costs. This represents an annual saving of $130,000 and in carrying charges alone, despite the fact that 1957 disbursements were $1½ million above those of 1954.

Economic Dispatch Computer

The economic dispatch computer as a load dispatching tool first came into use four years ago. Since that time about fifteen have been installed or ordered by electric companies. This equipment, with ability to take into account bus bar costs, transmission losses, and tie-line deviations, saves money and simplifies the work of the load dispatcher. A company having over 3300 megawatts of steam capacity, the first system to install this device, states that it saves at least $400,000 per year; the last system of which we know, estimates annual savings that will repay the investment in one-and-a-half years.

Here are two other examples employing automation techniques:

One is the installation, in the older portion of a power station, of a rather complete centralized information system of the kind normally found only with newer equipment. The result was a reduction in the operating force of from 54 to 41 men, thereby releasing 13 men for the operation of two new units at the same station. So in spite of almost doubling the station capacity from 264 mw to 486 mw, the total number of operating personnel required remains the same.

The other example is that engineers of one company have employed electronic computation of turbine heat rates in order to optimize the scheduling of turbine overhauls. These techniques not only minimize the possibility of error but also release skilled technical manpower for other work.

Another means of cost reduction comes from objective study of the best number of districts and divisions, the best boundary lines for them, and the best location of service centers and regional headquarters. One company, as a result of thorough study, combined three former districts into one, built a modern, centrally located district service center, and saved over $100,000 a year.

Here's another along the same line. A study showed that a particular company could reduce the number of divisions and of districts by one each, without hurting services to customers. The changes were conservatively estimated to result in a net decrease of $187,000 per year in operating expense.

Some utility companies can benefit greatly by improving their engineering. Proper engineering standards and design hold capital costs down and contribute substantially to operations improvement.

We should have open minds and should be alert to recognize soundly based engineering trends and to embrace them at the proper time. For example, the practicability of employing steam at super-critical pressures of the order of 4500 psi and 1150° F. has already been demonstrated. A recent study by one manufacturer indicates that significant fuel savings are possible from further increases in pressure and temperature up to 10,000 psi and 1450° F., respectively. It is not suggested that you should adopt these ideas but, rather, that they be studied as to their suitability for your situation. Also, in this country 345 kv transmission is already a well-accomplished fact and 500 kv is under test. Whether and when to go to extra high voltage transmission are matters for very careful consideration. Engineering advances such as these, if adopted at the right time and if applicable, contribute greatly to overall company efficiency.

More Standardization Needed?

The question may well be raised as to whether we need much more standardization industry-wise. We suffer from the tremendous variety of engineering practices throughout our industry, some of which must be unnecessary. Let us consider this further.

In planning system expansion we naturally utilize to the greatest possible extent the present plant investment of over $37 billion; so existing facilities tend to be weighted very

heavily when we are planning new facilities.

But history shows that about three-fourths of present plant investment was made in the past 20 years. Based on forecasts of our growth, we can expect that about three-fourths of the investment in 1978 will have come in the 20 years ahead of us. In planning future systems, therefore, the weighting might well shift toward the new facilities.

Standardized Voltages

Here's just one example in a field in which our industry spends $200 million a year. While substantial standardization progress has been made in distribution transformers, we still find a large number of voltage ratings in use today and many transformers that must have different combinations of taps to permit their use on systems of essentially the same voltage class but of slightly differing operating voltage levels. Industry-wide standardization of a single primary feeder voltage somewhere between 22 and 35 kv would provide a tremendous savings to the industry.

If the roughly 600 different varieties of distribution transformers which must be manufactured and stocked today to meet our needs are to be held constant let alone decreased, then *now* is the time to do something about it. This is just one example of a challenging opportunity to reduce costs through a bold but realistic approach to standardization.

Engineering Standards

Within many companies, engineering standards carefully prepared, kept up to date, adequately disseminated, and made mandatory as to use make possible substantial savings. And other standards can help, too.

One company has done a magnificent job in reducing the number of different types of distribution transformers it purchases from 50 to only seven, with obvious savings in investment in transformers as well as in other purchasing, warehousing, and clerical costs.

In the marketing field it's difficult to associate better methods with cost reduction. Better methods may involve cost increase and frequently do — but certainly they involve better results for money spent. In addition to the ever-present need for good management to help assure this, there are some basic attitudes and practices that make for better results and that should be given serious consideration.

In the commercial and industrial sales fields greater beneficial use can be made of such mass-selling devices as conducting do-it-yourself courses for personnel of customers and trade allies. These sales aids have a big leverage effect and turn trade allies and customer employes into salesmen for us.

In the residential sales field greater progress is now being made than ever before in coordinated selling by all branches of our industry. But many of us haven't yet taken advantage of the benefits of pulling together and of using plans, programs, and materials carefully developed and packaged for our use and available at much lower cost than any partial substitutes we could contrive ourselves. To be "tops," sales management should give careful thought to using the EEI-NEMA coordinated calendar, to implementing the fine HOUSEPOWER program locally, to participating in the Medallion Homes program, to having an organized approach to the home lighting market with use of the Better Light Better Sight programs, and to supporting the proposal that EEI assume dynamic leadership in promoting Live Better Electrically on an industry-wide basis.

It's no longer a rarity for electric companies to have area development programs to encourage industry to build in their service areas. But not all companies have yet realized that area development may properly encompass much more than merely industrial development. For example, it may call for a broader approach to make the area a better place in which to work and play and raise one's family. That, in turn, calls for active community betterment with utility leadership to provide city beautification, youth programs, cultural and recreational facilities, better municipal services, good land use planning, and the like.

Top management can't be "tops" without carefully studying what it can best do to build its business in all major markets and to make its service area more attractive to business and industry.

"Work simplification," "better methods," "methods improvement," or whatever name is given to training company personnel in the basic ideas of the concept of cost reduction, is an important means of improving efficiency. It has been defined as "the organized use of common sense by the man on the job to find easier and better ways of doing work." Its underlying philosophy is that there is *always a better way* and that a systematic search for better ways by those doing the work is bound to be more fruitful than a hit-or-miss approach. Through such training one electric company estimates a saving of $2.58 for each dollar spent; another estimates that its saving was as high as $1 million in one year.

Organizations of the Industry

Like others before me, I would like to emphasize the losses and inefficiencies that result from our divisions and from our non-participation in, or lukewarm support of, organizations dedicated to the benefit of our entire industry. Assuming 200 companies as the eligible base, EEI has almost universal support, with 94 per cent of companies and 95 per cent of meters represented in it. But NAEC has but 56 per cent of companies representing 78 per cent of meters; ECAP has 56 per cent of companies with 62 per cent of meters; and PIP, 35 per cent of companies with 50 per cent of meters.

It is not suggested that every company should be in every one of these organizations but that this subject deserves careful review. Certainly if all these groups had membership as representative as that of EEI, they could do more effective work and could reduce their charges as well. Where membership is appropriate, support of these organizations is a two-way street. Benefits accrue not only to the industry but to the individual companies as well. Participation puts management in a better position to intelligently direct company affairs and help to inform, to inspire, and to motivate company representatives working with these organizations.

Is your top management "tops"? Certainly we have not given you the answer to that question. At most we can hope to have provided a partial check list to stimulate your own

(*Continued on page* 231)

The Place of Public Relations in Modern Management

By Anthony G. De Lorenzo

Vice President, Public Relations, General Motors Corp.

An address before the Twenty-sixth Annual Convention of the Edison Electric Institute, Boston, Mass., June 11, 1958

I FEEL a good bit like the fellow who came back to town after an absence of 10 years.

His friend said, "Andy, where *have* you been? I haven't seen you in pretty near 10 years. Where you been hiding?"

"Prison," said Andy.

"Prison!" said his friend. "What for?"

"Swindling," said Andy.

"*You* never swindled anybody," protested Andy's friend.

"I know," said Andy, "but the district attorney made me out so smart, I just couldn't bring myself to contradict him."

When your emissaries got through with me, I felt very much like Andy. I just couldn't bring myself to contradict them and inform them that *you* should be telling *me* about public relations, not the other way round.

I have observed your industry for a good many years. I saw you take it on the chin, pick yourself up, go down a second time, then pick yourself up again.

Strong Public Position

Today, it is my belief you occupy the strongest public position in your history. This is the opinion of an outsider and it is not based on any profound research, but sometimes such off-the-cuff opinions are helpful.

I would also say in all sincerity that much of the credit for your improved public position should go to the well-conceived and well-planned public relations activities you have undertaken as a group and as individual companies.

You have established yourselves as experts in the field of public relations. However, if, notwithstanding that, you folks in Newcastle still want coal, I for one do not object to carrying it.

Let me begin with a confession. I am *not* very proficient in public relations semantics. Sometimes I even have my doubts whether public relations has yet attained the stature of other professions.

ANTHONY G. DE LORENZO

For one thing, we don't have any impressive paraphernalia. The engineer has that mysterious contraption called the slide rule; the accountant has his calculator. Doctor and dentist have formidable assortments of weapons, while the lawyer can cite obscure cases from forbidding shelves of musty volumes.

We have no accessories in our trade, and I think this is one reason for the tendency I have noticed to surround public relations with a mumbo-jumbo of mysterious phraseology.

Such phrases as "the engineering of consent," "perceptual context" and "social lubricity."

In one rarified discussion a practitioner defined public relations as "the science of propulsion of motivation."

My concept of public relations is somewhat more down to earth. To me it means primarily—

"Getting along with people."

A company can be said to have good public relations if it gets along with people.

A good public relations man has the ability to get along with people —people individually and people in groups. Unfortunately, some public relations men mistake the first for the second. They think, if you get along with people individually—over a martini, for instance—the rest comes easy.

Actually, the second is more important—getting along with people in groups—employees, customers, shareholders, suppliers (in our case), dealers, neighbors and, of course, that biggest and most indefinite of all groups—the public.

Perhaps I had better explain a point that frequently confuses our thinking about public relations.

Actually, we use the phrase "public relations" to describe two separate things—a state of being and an activity.

Public relations means, first of all, a company's relations with the public —in other words, how it stands with the public, whether people like or dislike it and its products. In this sense public relations is a plural noun.

Also Public Relations

But public relations also means the things the company does in a formalized activity to *influence* its relations with the public. In this sense it is singular.

All groups have "public relations" spelled with a small "p" and a small "r." Whether we like it or not, whether we want to or not, you and I *have* relations with the public or a public.

But—whether these relations are good or bad can depend in substantial degree on what we do about them in a conscious way. This is Public Relations, the organized activity, with a capital "P" and a capital "R."

I think it is important to make this distinction. Otherwise we tend to become bogged down in a morass of words. It is important to know, when someone says the Hometown Edison

Company has good public relations, whether they mean it has a smart public relations staff or whether they just mean its relations with the public are good.

Not too many years ago a company's relations with the public were presumed to be good until they got so bad they smelled to high heaven. At this point the company president would get a bit worried, call in us fire laddies and say he thought he detected a faint aroma of smoke. Of course, the whole place was ablaze by then, and often there was nothing to do but rebuild from the ground up.

Public Knows Pig in Poke

Some public relations practitioners are still required to spend most of their time trying to make a silk purse out of a sow's ear. By and large, however, the public has learned to recognize a pig, even in a poke.

What this means is that public relations has to start with a solid foundation of good deeds. This is what we have in mind when we say that the *job done* is an essential prerequisite to public acceptance. *Make* a good product, live right, *treat* your employees well, be competent managers and so on, and you have laid a solid foundation for good public relations.

For the very small company this is usually the sum total of good public relations. Good employer, good product, good service, good neighbor; add them up and you have good relations with the public.

Fortunately for us in the business, this is not the whole story by any means. For the larger company, while *doing* a good job is fundamental to good public relations, *how* you do the job is important too. The job must be done in the *right way* or the effect on one's public relations can be little short of disastrous.

Hell Broke Loose

Some years ago we decided to build a plant in—let's call it, Glen Springs. We got together a tract of land. Then we drew up our plans, filed them and petitioned to have the property rezoned for heavy industry. Immediately, all hell broke loose. Citizens committees, action committees, church groups, town councilmen jumping on the band wagon—you'd have thought we were planning to pillage and sack the community and carry off the women and the children into slavery.

It took months to convince Glen Springs that we weren't going to build an eyesore; we weren't going to pollute their river; we weren't going to create a smoke nuisance; our trucks weren't going to endanger their children. Eventually, we did win reluctant consent to the project and went ahead and built our plant. What is the sequel? Today our community relationships in Glen Springs couldn't be better. The people there are very proud of their General Motors plant.

But how much simpler if community leaders had been consulted right after we acquired the land, if our plans had been explained to them, if assurances had been given as to what the plant would not be. What a monumental effort would have been avoided. We had to learn our lesson the hard way.

One reason for this, I think, was that public relations in those days was the frosting on the cake—something you put on after the layers came out of the oven and just before company came. This brings me to a most important point.

Doing a good job in the right way means, among other things, giving consideration to its public relations aspects at the very start.

This explains why we say that public relations is a management function—a top management function. Every policy decision, every administrative action all down the line, has a public relations aspect to which consideration must be given. And this consideration must come *before* the decision is made or the action taken—not after.

As I pointed out a moment ago, public relations started out as a fire department, and we still get called out in the middle of the night on occasion. But increasingly we are concerned with preventing fires by having something to say about the materials that go into the house in the first place.

If we had given consideration to the public relations aspects when we first decided to build a plant in Glen Springs, I doubt we would ever have been in trouble. We would have asked ourselves right at the start, will the community oppose the idea and for what reasons? Have we answers to objections that will seem valid to the community? How best can we present them?

Mind you, I am not saying that the public relations aspect of any policy or action should control. Usually, other considerations come first.

A lay-off, for example, may not seem wise from the public relations standpoint, but when customers lack confidence and exercise their right to refrain from buying, lay-offs become necessary. In making the decision to lay off some employees we should, however, be aware of what the public reaction will be.

Duty of Businessman

The point to be borne in mind is that public relations is never an end in itself but only a means to certain ends. A good public standing in the community is not worth much to the company that has gone broke achieving it. As D. W. Brogan says, the duty of the businessman is to keep his company solvent and this duty transcends all others. This may seem obvious, but I am afraid that sometimes it is forgotton.

If we keep in mind that our end objective in seeking to improve our public standing is not solely to become "a jolly good fellow" but primarily to increase sales or do a better production job—in other words, to perform our function of operating a profitable business—then we shall be better able to identify and assess the public relations aspects of policies and actions.

Going beyond our immediate reaction that a lay-off will be unpopular and therefore unsound from a public relations standpoint, we may conclude that in a specific instance it is actually in the long-term public relations interest of the company.

Which Is Worse?

This may appear to be a pretty agile rationalization, but bear with me a moment. Are employees temporarily out of work better off than exemployees of a company that has gone broke? Is a community with a plant at half-mast better off than one with a factory whose windows are broken and whose parking lot is knee-high with weeds?

I am mindful of a company that thought it was building good relations with its employees by agreeing to substantial concessions having to

do with the operation of the plant. This was when its products were in great demand after the war. Now, even the employees themselves are critical of this management for imperiling their jobs by letting the company get into a bad competitive situation.

What the management failed to do was take a firm position and then give the reasons for it. This leads me to another important part of the Public Relations job. First, it is important to let people know. Second, it is important to explain.

Even when we know our action will have a *good* public reaction, it is important to publicize the action. Doing a good job in the best way possible is not enough. A good deed doesn't necessarily speak for itself. There is no beaten path to the door of the better mousetrap builder who hides his light under a bushel.

For the individual, modesty may be a virtue, but there are few companies that can afford this luxury—for long.

It is important to explain lest there be any chance that your policy or action can be misinterpreted. We assumed that Glen Springs would welcome the obvious (to us) benefits of a General Motors plant. We overlooked the fact that to our prospective neighbors there were certain obvious (to them) disadvantages.

It is important to let people know, to explain, even when a contemplated action is sure to have a bad public reaction. We have found to our sorrow that if we don't announce the closing down of an operation and don't explain it, the union will. Unfortunately, the union explanation is seldom the same as ours.

It has been said that from the standpoint of public relations the important thing is not what you do or are but what the public thinks you do and are. Without subscribing to this rather cynical philosophy, the fact must nevertheless be accepted that for us the shadow often looms larger than the substance. And if the shadow happens to be reflected off a—shall we say—oblique surface, one that is not four-square, the result may well be a quite distorted image of the substance.

It's like those mirrors in the fun house. "Business prudence" becomes "capitalistic greed"; "enterprise" changes to "aggression"; "efficiency" distorts to "ruthlessness." Qualities you had always considered virtues suddenly are made to appear most reprehensible.

Some years ago one of our plant managers was invited to appear before a citizens' committee engaged in an important community study. For good and sufficient reasons—the plant manager had to determine if any helpful material could be made available—he delayed his acceptance. Two months later he still hadn't accepted because the material still wasn't ready.

Telegram from the Blue

Then, out of the blue, he got a telegram from the committee accusing him of not even giving them the courtesy of an acknowledgment. Fortunately, the telegram was never made public, but if it had been, General Motors would not have appeared in a very good light.

In this case the shadow cast would have been our own fault. We had good reasons for delaying, but we didn't stop to think what other construction could be put upon our failure to reply. We didn't visualize the local headlines which undoubtedly would have read, "GM Flouts Committee."

If you will permit me to change metaphors in midstream, it is my belief that public relations has an obligation to chart a course through these treacherous shoals and reefs of misinterpretation and misrepresentation. It is not enough to be prepared to man the lifeboats. We must call attention to the danger of running aground.

High-Order Judgment Needed

Because we have no psycho-sonic depth finders with which to detect the submerged rocks and sandbars of public misunderstanding that may lie ahead, this calls for judgment of a high order—judgment based on experience and compounded with imagination. Imagination is most important because it is only by the use of imagination that we can assess the act of today in terms of the repercussions of tomorrow. In the case of the invitation to appear before the citizens' committee, I am afraid we were guilty of lack of imagination.

To sum it up, good relations with the public derive from doing a good job, doing it in the right way (beginning with the initial management decision) and seeing to it that people are properly aware of the job done by means of a good Public Relations activity.

That's a pretty long and involved sentence so let's try again:

Good public relations (with a small "p" and a small "r") result from sound decisions effectively carried out and implemented by good Public Relations (with a capital "P" and a capital "R").

How does one know when one's relations with the public *are* good?

Public Relations in its positive sense may be likened to preventive medicine. Both Public Relations and preventive medicine attempt to prevent situations from arising that may lead to unpleasant results. Neither can be sure that these unpleasant results would have arisen if the preventive measures had not been taken.

In terms of large groups and over long periods of time benefits are evident from both preventive medicine and Public Relations. We know that people on the average live longer than they used to. We know that the public standing of General Motors has improved over the years, and we think that Public Relations can claim a measure of credit.

As of any particular moment, the evidence is not so clear. It is almost as difficult to interpret the pressures of public opinion as those that make our weather. We do, however, have certain barometers, weather vanes, cloud formations and other signs available. By putting them all together, we get some sort of a weather map of public opinion.

In our case, we keep tabs on what people are writing and what reporters are saying. News media and newsmen reflect public opinion and they also *affect* it.

Our representatives in the field serve as effective listening posts in their respective communities. Their reports are valuable indicators of what is developing in the "grass roots" of public opinion.

Other indicators of the public standing of a company are opinion polls. Public opinion is a complex thing, the product of many, often opposing, influences. And polling itself is a tricky business. For one thing it assumes that the public always *has* an opinion. Unfortunately, the sad fact is that on many subjects and issues many people are opinionless.

Even more unfortunately, some won't admit this to the pollster. That is why you can always get expressions of conviction on non-existent issues —such as: Are you for or against the Utility Service Act?

The label on the public opinion poll package should always read, "handle with care." Even so, the polling technique is useful in measuring attitude trends and, in some cases, for exploring specific public issues. We use it, and I know you do too.

Coals to Newcastle

Now, I would like to carry another load of coals to Newcastle by telling you about several projection techniques (I can talk the language too) we have found useful in our public relations activity. I have labeled these techniques, possibly because I am fond of alliteration—precison, punch and people.

First, "precision." By precision I mean acting at precisely the right moment. In public relations, knowing *when* is almost as important as knowing *what*. Bad timing can all but cancel out the effects of a good policy. On the other hand, proper timing can greatly increase the public impact of any action.

An example of good timing occurred this spring when we released our first-quarter profit figures. They were down substantially from last year, but it so happened that our two principal competitors had put out their figures a short time before and they were down even more than ours were. The contrast made our report appear quite favorable. Unfortunately for my point, I can't claim that this example of timing was the result of any deliberate action on our part. We were just lucky.

The second technique we have found it useful to give emphasis to in our public relations work is "punch." I mean by that putting the extra zip into a project to lift it out of the ordinary and make it catch and hold public imagination. Punch calls for a flair for the dramatic and the unusual.

For example, several years ago one of our statisticians told us we were about to produce our 100 millionth diesel horsepower. We put punch into that statistic and came up with the General Motors Powerama, a show which ran for 26 days in Chicago and was visited by more than 2¼ million persons. Our Motoramas put punch into the introduction of new models, and this year we are putting punch into our fiftieth anniversary with a series of Golden Milestone events.

The third technique I want to call to your attention I have labeled "people." A company is judged more by the personal contacts of its people than by any other one thing. Because of this, Public Relations as an activity cannot be carried on exclusively by a single staff, department or section. Its effectiveness is measured largely by the extent to which *all* of the people in the organization understand its objectives and participate in carrying them out.

Ideally, all contacts with the public should be on a personal, a person-to-person basis. This is, of course, an unattainable goal, except perhaps in the case of the very small company, but it must be kept ever in mind. The objective should be for every person in the organization to constitute himself or herself an ambassador of good will.

Generally speaking, we have developed a pretty good diplomatic service in General Motors—right from the top on down. Many of our executives have an instinctive knack for good public relations. Others have learned the value of acquiring skill in its practice. However, fortunately for us who make public relations a full time activity, our executives have other tasks that keep them busy most of the time.

Local Activities

In our plant cities our community contacts are good. Our people are active in seeing to it that General Motors is identified as a good neighbor. This is largely accomplished by virtue of the fact that our people themselves are good neighbors. Several years ago we made a study and found that about two thousand GM executives were active in some six thousand local organizations.

Many executives also do a considerable amount of public speaking—which, I suppose is second only to the person-to-person contact as an effective public relations tool. The speaker communicates directly with his audience. He can project his personality —which we must assume is an advantage. The audience can ask questions and receive answers. And, finally, the speaker has the opportunity before and after his talk of mixing with his audience and establishing personal contacts.

I consider this participation of the people of an organization in its Public Relations activities so important that I would almost go so far as to say that an organized staff can accomplish little of lasting value without it. We may write the score, supply the instruments and handle the baton—but it is the musicians in the orchestra who furnish the music.

Electric Industry's Job

I must say I feel it is a trifle superfluous to tell you these things, because I have noticed the electric industry is already doing an outstanding job with a variety of techniques.

For example, you do a far more effective job with people than we do. This is partly because of certain fundamental differences between your industry and mine.

Except in the case of such divisions as Electric-motive, General Motors has little direct contact with the users of its products—as customers. We do rub elbows with customers who are neighbors in cities where we have plants. And we do meet with small groups at special events and occasions. Our finance subsidiary comes in contact with customers as borrowers, but the relationship of borrower to lender is hardly a firm enough one to support much public relations weight. By and large, the only direct, person-to-person contacts our customers have are with dealers, who, of course, are independent merchants.

Personally, I would give my eye teeth to have available your contacts, even your service and meter-reader contacts. You are most to be envied though for your local executive representation in so many of the communities where you do business.

Sam Smith is active in civic affairs and service organizations. He appears on local platforms. He helps raise funds for worthy charities. Inevitably, the "company" becomes personified by good, old Sam Smith. What people think of *him* is what they think of the company.

Even your service interruptions have a silver lining. They are usually the result of an act of God, not the fault of an assembler or mechanic. And there's a lot of plus value in those dramatic stories headed: Crews Toil Through Night" or "Pow-

er Companies of Four States Rush Aid."

You have the opportunity for regular monthly mail contacts with your customers. We have to make an effort just to get the names of ours.

Let us go a little further in analyzing our respective industries from the public relations standpoint.

Both of us, I think, recognize the value of investors. But you are more concerned with *potential* investors because you must go to the capital markets more often than is the case in our industry.

Physical Plant Investment

Physical plant is more important in your industry than in ours. Your capital invested per worker is approaching $100 thousand. Ours is in the area of about $15 thousand.

By the same token, we have more employees. In fact, General Motors alone has more employees than your entire industry. This is one reason why in our case employee relations is an activity entirely separate from Public Relations. However, we recognize that the two are closely linked, and our Vice President in charge of Employee Relations and I operate as a team on most projects. We decided long ago that it would only waste time to try to figure out where Public Relations begins and Employee Relations leaves off.

We do not have your problem of regulation—as yet; and this, I believe, is one reason why an industry-wide Public Relations activity is important in your case to supplement the work you are doing as separate companies. Your major problems are industry problems; ours are company problems.

'Our Most Pressing Problem'

When I rather rashly agreed to undertake this assignment, I asked your able and energetic managing director for some material about the electric industry. One of the pieces he sent me was a booklet entitled, "Our Most Pressing Problem." I was intrigued by this title because, believe it or not, General Motors has a most pressing problem too.

Your most pressing problem, I discovered, is the problem of government encroachment. I was even more intrigued, because our most pressing problem — and I am talking about long-term, not short-range problems —is bigness.

In my opinion, your problem and ours represent two aspects of the same problem.

It would be presumptuous of me to discuss the electric industry's problem before this audience, but you may find a brief discussion of our problem of interest.

This problem of bigness is not a new one. My predecessor in General Motors listed it as the first problem he wanted to solve when he set up a Public Relations activity in General Motors in 1931. It is the first one on my list too, but I suspect the only way we ever really will solve it is to stop being successful.

Just as you have accepted the role of a regulated monopoly in the classical sense, so have we decided that it is foolish to seek to hide the fact that we are big. Instead we concentrate on the positive benefits that have resulted from our growth and progress.

People seem to forget that success in serving the consumer necessarily means growth. They also forget that a big country, big jobs—some of them imperatively important, as during wartime—require *big* companies. We are as far removed from the days of the community wagon works as those of the one-community lighting plant.

Rather than throwing roadblocks in front of successful organizations which grow big, it would seem better to weigh the size of a company in relation to its services to the consumer. The purpose of competition is to benefit the consumer and not the competitor. So far as the consumer is concerned, he benefits more in many cases from competition among a few large companies than from competition among many small, weak ones.

Surveys have shown us that the public likes our products and the things we do but they are distrustful of our size and the power they assume goes with it. I think they would be disabused of this assumption if they knew how carefully a big company has to tread. Or if they realized what high visibility we have. Or how easy a target we are for any demagogue with an arrow.

A perennially popular arrow is the theory that large companies drive small companies out of business; that big business and little business are like oil and water—they don't mix.

Nothing, of course, could be further from the truth. No industry has done more to foster small business than ours.

General Motors alone has 26,000 suppliers. We have 18,000 automotive dealers. We have helped spawn hundreds of thousands of small enterprises—service stations, motels, taxicab companies, hot dog stands, trucking concerns and so on.

Many supplier companies could not exist without the large end-product fabricators who are geared to provide a national market for their output. On the other hand, many perform a service that a big company could not perform. We are seeking to educate the public to a better understanding of how industry functions in this country as a complicated mosaic of overlapping and interrelated producing and distributing teams.

Electric Companies' Destiny

In concluding these remarks I would like to make the perhaps obvious point that one of the most important links in this network of teams is the electric companies. It is you who have so largely made it possible for man to have machines to do his work for him. You are destined to become an increasingly important supplier to us as we make further progress in technology.

I am sure that both *you* and *we* will continue to be beset by many public relations problems and that in many cases they will bear marked similarity to each other.

I am equally sure that in your case, led by your alert Institute, you will continue to make of each problem an opportunity for improving still further your relations with your publics.

I only hope that we can do as well.

Hints for Speeding Mail Service

FOR faster mail service, the U. S. Post Office Department suggests:

1. Use zone numbers; use your zone number in your return address. (It's part of the address.)
2. Separate local from out-of-town letters.
3. Bundle your mail.
4. Mail by noon.

The Post Office reminds us to "Mail early in the day—it's the faster way."

Where Do We Go From Here—and How Do We Get There?

By Sherman R. Knapp
President, The Connecticut Light & Power Co.

An address before the Twenty-Sixth Annual Convention of the Edison Electric Institute, Boston, Mass., June 11, 1958

THE theme of this convention is "POWER Is Our Business." My particular concern is with the power of public opinion—what it can do for you and, inferentially at least, what it can do to you.

To set the stage, I am going to make one great big beautiful assumption—namely that all of us rate A-plus in our basic job of supplying electric service. My point in making such a utopian assumption is that we cannot hope to get very far toward molding public opinion in our favor unless we are doing the best job we know how to do in our routine day-to-day work, involving as it does innumerable business contacts with the people of the communities we serve. Just as perfume will not for long hide the need for a bath, neither will a fancy public relations program prove much if our facilities are inefficient, or if our employees are discourteous and inattentive in doing business with our customers.

Customers Are Our Business

I submit that customers are really our business, and that "Power Is Everybody's Business." We live for and with the public, and we need their understanding as much as they need our service. To gain public understanding, we must first understand the public—as individual customers, and as vaguely defined national opinion. But before I can raise the subject of "Where Do We Go From Here—And How Do We Get There?" I might better ask, "Where Are We Now?"

Well—we are in a peculiar business. We are public utilities in the sense that we must deliver our product to anyone who can pay for it. We are publicly owned by anyone with the price in his pants who wants to buy stock. We are publicly responsible to serve our communities—and pay our taxes. We are publicly regulated so that our charges for the services we supply do not result in more than a reasonable return on our invested capital. Incidentally, many people outside our industry who should know better, erroneously believe that regulation means that utilities are guaranteed a profit, and that all we have to do when the going gets rough is to ask for a rate increase. The history of the trolleys, and now the bus and railroad business, denies any guarantee of profit because of regulation.

SHERMAN R. KNAPP

We were created to serve the public, financed by the public, making a profit for the public. How public can you get? Yet we have allowed ourselves to be labelled as "private" power companies, as distinct from "public" power operations which are directly or indirectly "government power operations" and whose lifeblood is governmental credit and freedom from taxes.

I think some of our problems stem directly from this unfortunate confusion in nomenclature. We say we are "investor-owned." Investors, to oversimplify, are moneyed persons, cash operators who must be rich. Actually, like most corporations, we are people-owned, by school teachers, butchers, cops, businessmen, young couples and old folks who seek a safe place and a reasonable return for their money. In a way, it is the glory and safety of our economy that the biggest business is owned in small pieces—by people as people, and not simply by people as taxpayers, who pay their money and have no choice as non-voting stockholders in government operations.

Our business is also peculiar in that our product is invisible, available on a push-button basis. It cannot be packaged, but only measured. Most products have a plus that outweighs the minus — people get a kick out of a car that lets them forget the gas and repair bills — if they've had a good meal, they don't squawk at the check. One reason is that they have exercised a considerable freedom of choice in both quantity and quality of what they eat, drink, drive, and burn up in various pleasant and satisfying ways.

Three Contacts—All Negative

Electric power has no such dimension of personal preference. It does not come in a carton with a four-color label — although I wish it did. While other products provide prestige or some kind of glow, the normal electric customer has but three major contacts, all negative, with the company which has worked so hard to get its product under his thumb:

. . . when he pays his bill;

. . . when the meter reader walks across his flower bed or arouses his dog;

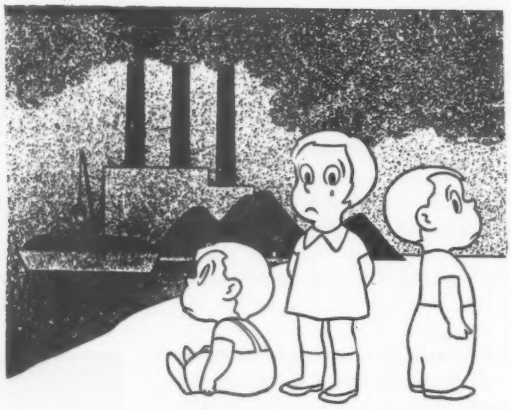
. . . when the lights go out.

Our product, like air, water, and salt in oatmeal, is noticed most in its absence.

In my company's territory we have learned to live with disaster—a couple of hurricanes, two devastating floods, and assorted ice storms which left thousands of people without light,

COAL DUST and FLY ASH
FOR BREAKFAST
EVERY MORNING
Do you prefer fly ash or cinnamon on your toast? According to testimony of President Knapp of the Connecticut Light & Power Company, there will be 5.4 tons of coal dust and fly ash (not cinnamon) shot into the Norwalk air every day when they build their grimy, 26-story power plant where our Manresa Park should be. Add to that the dust that will blow off 5 acres of powdery coal.
Have you ever tried keeping your curtains clean, shirt clean, clothes line clean, lungs clean, automobile clean—in a city living in the shadow of a monster like this power plant will be? Other Connecticut towns have turned away this power plant and so can you. You can keep Norwalk clean and healthy if you will go to the polls November 5 and vote YES to
SAVE MANRESA PARK
Vote Yes For Norwalk
"I am in favor of the City of Norwalk acquiring Manresa Island for recreational purposes if feasible."
This Advertisement Sponsored By Women's Civic Association

AGAINST—Forces against The Connecticut Light & Power Co. erecting a power plant on Manresa Island urged the City of Norwalk to acquire the island as a park.


"Sorry Kids! We just sold your fresh air for $3.84"
That's what a few people in Norwalk are trying to do. They are quite willing to foul your fresh air, smudge your clean beaches and perhaps ruin your health. Why? Because they are greedy for a very few tax dollars. They are willing to permit a monstrous coal-burning power plant to be erected on Manresa Island. In return the power plant promises to pay the city $250,000 in yearly taxes.
Do you know that that amounts to only $3.84 per person. And for this miserable small sum a few of your unthinking Norwalk neighbors are planning to sell, forever, the clean pleasant beaches and the fine fresh air we have been saving for you. Don't let them do it.
IT'S NOT TOO LATE for you kids to object. Tell your parents you want to keep Norwalk clean and healthy. Tell them that it is their duty to
SAVE MANRESA PARK
VOTE YES
"I am in favor of the City of Norwalk acquiring Manresa Island for recreational purposes if feasible."
VOTE YES
This Advertisement Sponsored By Women's Civic Association

Ads in the newspapers pointed out the disadvantages of the power plant occupying the site. The ad above and left are typical of those used to influence voters.

heat, freezers and water. These disasters presented huge public relations problems. But, we thought of them more as private relations problems, things happening to our friends, our customers, who had to be helped and informed, who had to be told by any means available that we were all working to free them from their sudden plunge into pre-electric living. I am still humbled by the faith and patience of these people that somehow, sometime, and as soon as possible, we would get there, and the lights would go on again.

Perhaps this experience has made me doubly conscious that public relations begins with private understanding between a company and its customers. Things were much simpler when you could pick up the phone, after cranking it of course, and say, "Sadie, can you get me John Jones?" —and Sadie would say, "I'm sorry, Sherm, he just came out of the bank, and he's walking over towards the harness shop—no, he's not going in, he's crossing over to Judge Peebles —and you know *him*, so he probably won't be back in his office for half an hour. You want I should call you?" Sadie represented person-to-person communication at its best and we need more of that warm interest and first-name feeling in the mechanics of modern communications.

Humanizing Rolls Royce

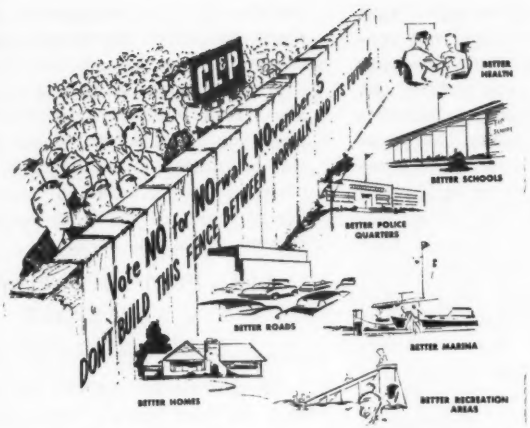
There is a line in the new Rolls Royce advertising, featuring pictures of people washing their own $13,500 car and using it to lug groceries, which I think is significant to us in the power and people business. It reads, "If you are diffident about driving a Rolls Royce, you can buy a Bentley, which is the same automobile except that the radiator costs less to make so it is priced at $300 less." Well, I thought a Bentley was something slightly better than a Jaguar, and costing maybe a little less than a medium-rare "Caddie."

The key word is "DIFFIDENT." I think we have, many of us, been diffident, to say the least, about driving around in our best ideas in our own communities. We have refused to face the difficult, and evaded the unpleasant, on the sleeping-dog basis. Or with that other corporate cowardice —pull down the shades, don't answer the door, and maybe they'll go away.

Possibly, we have an overdeveloped sense of guilt, like a family whose genealogist has found a sheep-stealer hanged on the Scottish moors four hundred years ago. Yet a family tree without a dangling ancestor is almost certainly not of noble blood.

I say that many of us have been too diffident, too self-conscious, to drive around in the opinions we have every right to enjoy and employ. Too many of us have been willing to settle for silence, for diffidence, because Great-Granduncle Joe took a shot at the sheriff, or twisted the Senator's tail shortly after San Juan Hill.

I do not think national problems are a simple multiplication of regional and company problems. But I do believe that public relations begins on the home grounds. I can prove it with



Don't Build A Fence Between Norwalk and Its Future

The latest Annual Report of the City of Norwalk said,

"With a larger Police force necessitated by extended coverage and increasing population, the Department has outgrown its present quarters and for greater efficiency should be housed in a larger and more up-to-date building."

This expansion is part of Norwalk's future. Tax income from CL&P's Manresa development will help to furnish this needed facility.

THIS IS THE PROPOSED FENCE BETWEEN NORWALK AND ITS FUTURE

VOTE NO — I AM IN FAVOR OF THE CITY OF NORWALK ACQUIRING MANRESA ISLAND FOR RECREATIONAL PURPOSES IF FEASIBLE — VOTE NO

Vote NO for NOrwalk on NOvember 5

THE CONNECTICUT LIGHT AND POWER COMPANY

FOR—For the first time, Connecticut Light & Power took its side of the story directly to the citizens of Norwalk through newspaper ads. This was a major decision for CL&P.

losing a MILLION DOLLARS is no joke either!

That's how much you and the other Norwalk taxpayers have lost in increased tax income in the five years CL&P has been held up in building the Manresa power plant.

A Million Dollars would have helped Norwalk to keep its progress going, by helping provide —

- modern police headquarters
- new schools
- new or improved roads
- new fire stations
- improved recreation areas

Money is needed to pay for these important civic improvements. A power plant on Manresa Island will help provide this money, with more than $250,000 a year in increased tax revenue. You can keep Norwalk's progress going, yet help to hold *your own* taxes down.

You Can Do It By Voting

NO for NOrwalk on NOvember 5

THIS IS THE PROPOSED FENCE BETWEEN NORWALK AND ITS FUTURE

VOTE NO — I AM IN FAVOR OF THE CITY OF NORWALK ACQUIRING MANRESA ISLAND FOR RECREATIONAL PURPOSES IF FEASIBLE — VOTE NO

Vote NO for NOrwalk on NOvember 5

THE CONNECTICUT LIGHT AND POWER COMPANY

Ads such as those shown here pointed out that if the City of Norwalk acquired Manresa Island as a park, the city would lose many thousands of tax dollars. CL&P won the issue.

names, dates, and headlines. It happened to us—it could happen to you. This is how it happened, and how we met it by shaking off our diffidence and going straight to the people.

I do not profess to be an expert in what is loosely called public relations—although I have become increasingly aware that every business, cause, campaign, drive, and everyday operation must learn to move within the limits of public understanding. I *am*, however, an avowed expert on The Case of Manresa Island—I had to be.

The Manresa case seems to have become a classic in public utility operations with the public. It had everything, embodying every branch of law and public communications, from the first stirrings of local sentiment to a place on the ballot in a city election. In the struggle for public opinion, just about every tool in the kit was used. It has even been chosen as a case study at the Harvard Business School.

It began in 1952 when we bought an island off Norwalk, Connecticut. For years, we had been searching for a site for a waterside plant which would allow us to meet the growing demand for power in Fairfield County, which is the southwestern stub of Connecticut that reaches within 30 miles of New York City. Both residential and industrial use have made this one of the fastest-growing sections of the State—and the country.

Actually, Manresa is not an island, but a fist of land at the end of a thin arm of causeway which puts it a good half mile from the nearest habitation. It is ideally suited to generating plant purposes with respect to both cooling water and water-borne delivery of fuel.

Opposition Well-Organized

There was an immediate protest from several neighborhood groups who felt that a power plant—even one a half mile or more away—would not be the most desirable addition to the harbor. The opposition was well organized, and well heeled. They made their presence felt at the Zoning Commission's public hearing in December 1952. At that hearing, which involved no change of zoning because the local commission is authorized to permit utility company construction regardless of zoning, I described the proposed plant, the increasing power needs of the area, pointed out that the new facility would not be objectionable, would employ some 70 people with a payroll of $260,000, and would up the Company's tax payments in Norwalk about $200,000 a year.

In advance of the hearings, we had flown a group of Norwalk citizens including the Mayor and representatives from the Norwalk Chamber of Commerce to Rochester, N. Y., to let them see for themselves the good neighborliness of Rochester Gas and Electric's Russell Plant on Lake Ontario.

Following the hearing, the Zoning Commission took the matter under advisement, and in January of 1953 they visited the new plant of the Long Island Lighting Company in Port Jefferson, Long Island, which is also on a beautiful harbor, familiar to all yachtsmen of the area. In January

1953 the Zoning Commission voted three-to-one to approve the construction of the plant with appropriate restrictions on smoke, noise and water pollution.

Following the approval of the Norwalk Zoning Commission, there were numerous legal maneuvers on the part of the opposition in their efforts to forestall the construction of the plant. The situation finally resolved itself into an appeal to the Connecticut Public Utilities Commission.

The hearings on this appeal, which were not concluded until June 1956, consumed 17 days and involved over 2,000 pages of testimony. In October 1956, the PUC affirmed the Norwalk Zoning Commission's action and the opposition promptly appealed the PUC decision to the Superior Court. When the Superior Court upheld the PUC decision in its order issued just a year ago in June 1957, the opposition still continued the legal battle by appealing to the Connecticut Supreme Court of Errors, the highest court in the State.

This recitation of legalistic maneuvers helps to set the stage for the real struggle for public understanding. The principal argument of our opponents was that the presence of the power plant would depreciate the value of their property. They realized as early as 1953 that to gain public support for their cause they had to adopt a more positive approach. This took the form of an attempt to sell the citizens of Norwalk that Manresa Island was needed as a public park, complete with boat moorings, swimming pool, beaches, playgrounds and all.

Public Voted on Issue

While the legal battle was going on in the courts, the whole question was, in effect, put up for public referendum at the time of the municipal election last November. The question which the opposition forced on the ballot by petition read, "I am in favor of the City of Norwalk acquiring Manresa Island for recreational purposes, if feasible." In order for this expression of opinion to become a directive to the City Council to act, the majority of the votes cast on the question would have to be "yes," and—more important from a practical standpoint, the "yes" votes would have to total 25 per cent of the total registered voters.

Our lawyers advised us that even if the opposition got enough "yes" votes to win, the City could not condemn the property we owned because it was already held for public use. Last summer our political advisers said that in all probability the opposition would have enough "yes" votes by the time of the election in November to outnumber the "no" votes, but that it would be very unlikely that enough people would actually vote on the question to fulfill the 25 per cent qualification. Last September we had a professional survey made to determine the public attitude toward the referendum. This showed that 43 per cent favored the City condemning Manresa Island for recreational purposes. Twenty-three per cent were against condemnation by the City, and 34 per cent had no opinion. In other words, of those expressing a positive reaction, the opponents were leading by about two-to-one.

To Be or Not to Be

The situation posed a real question of policy for us. Both the legal situation and the political situation seemed to say that we had only to keep quiet and we would survive by default. Should we take the chance of trying to win public support for our position in the face of what seemed to be rather tough odds? This was a question no court could answer for us in the orderly procedure of law. This was a question we had to answer ourselves in the give-and-take of public opinion. This was a matter of public relations in the purest and coldest definition. Should we answer the question? Could we afford to face the question? Could we afford NOT to face it?

A few of the paid advertisements run by the opposition will give an idea of the climate, of the heat and the hatred in which we had to live.

One of the advertisements used showed that our testimony that the proposed plant would not be a nuisance did not cut much ice with our opposition. Their illustrations of the plant continually pictured conditions that any self-respecting plant engineer would have been ashamed of 50 years ago.

Another advertisement did not say anything about the more than 98% of the fly ash that the electrical and mechanical precipitators will remove from the stack gases. While the figure of 5.4 tons of ash discharged per day is about correct for the ultimate development of the plant, the illustration is misleading to say the least.

Air pollution from fly ash and also from wind-blowing coal dust from the pile constituted the favorite argument used against the plant. It was treated in many different ways, all of them pretty effective. This one said:

COAL DUST and FLY ASH
FOR BREAKFAST
EVERY MORNING

Do you prefer fly ash or cinnamon on your toast? According to testimony of President Knapp of the Connecticut Light & Power Company, there will be 5.4 tons of coal dust and fly ash (not cinnamon) shot into the Norwalk air every day when they build their grimy, 26-story power plant where our Manresa Park should be. Add to that the dust that will blow off 5 acres of powdery coal.

Have you ever tried keeping your curtains clean, shirt clean, clothes line clean, lungs clean, automobile clean—in a city living in the shadow of a monster like this power plant will be? Other Connecticut towns have turned away this power plant and so can you. You can keep Norwalk clean and healthy if you will go to the polls November 5 and vote YES to

SAVE MANRESA PARK

Another showed a variation of the same theme. The figure of $3.84 was the opposition's calculation of the per capita tax saving resulting from the increase in the grand list which will be afforded by the plant.

Ignore Onslaught?

We wondered what we should do about this new and obviously professionally-planned onslaught. We were conditioned by public utility traditions to ignore it. But that wouldn't make it go away.

We decided to fight for what we believed in. We decided to go directly to the anonymous and amorphous public to state our case, to ask for understanding. We actually took an active part in a political operation.

In our advertising copy, we stressed the financial benefit of the plant to the City of Norwalk. We pointed out as often as possible the many things that the citizens of

Norwalk wanted which could be bought with the extra tax money from the new plant—better roads, better schools, a new police station, etc.

In the next ad, we again pointed up the financial importance of the plant to the City by citing the loss of a million dollars to Norwalk because of the five-year delay in starting construction.

Media Unlimited

They bought ads, we bought ads. They had bumper stickers, we had bumper stickers. They took to the radio, we took to the radio. I never knew there were so many ways to get a message across.

And you know what? We won by more than two-to-one. The total number of registered voters in Norwalk at the time of the election was 31,637 and the total vote cast on the question was 17,029 which was more than the total vote cast in Norwalk during the 1956 presidential election. There were 11,424 "no" votes to 5,605 "yes" votes. In other words, the people of Norwalk were opposed to the City taking our site for park purposes by a very impressive majority.

Both sides used all the familiar mechanics of public relations, press relations, and publicity operations. But it is too simple to say that we won "by enlisting public understanding." I am not sure that "The Public" is anything more than a political or pseudo-statistical expression. All I know for sure is that some of the things we did, or said, or stood for, somehow reached the *thinking* people, whose own understanding created public decision that could finally be tabulated on a voting machine. We learned that you can't possibly reach everybody but you can reach the somebodies who really make up the public mind.

So the heartening thing to me is not the blunt arithmetic of the vote, but that it was possible for a public utility to step into the arena of public opinion—and find it had friends. Even more important, that it was possible for a corporation to move, and breathe, and compete in the atmosphere of ideas.

For our industry, as well as all business, this crashing of the thought-barrier means some new concepts on our part. Indeed, "where we go from here," may possibly be conditioned on "how we get there."

I am glad to report that a few weeks ago the Connecticut Supreme Court of Errors upheld the decision of the Superior Court, and construction of the Norwalk Harbor Plant has finally begun.

In our business, fraught with the struggle between truly public utility operations and government power, we need public understanding more than ever. That means we need "eggheads," and in this I find I am not alone.

That most staid, yet lively, publication, *The Saturday Evening Post*, had this to say in its April 26 issue: "For some time, we *Post* Editors have been deeply disturbed by the obvious — and obviously dangerous — chasm that separates the intellectuals of our nation from the millions of citizens whose attitudes and opinions determine national policy and set the standards for national behavior.

Intellectual's Outlook

"The intellectual, or 'egghead' (as we carelessly brand him) has deep reservations about the ordinary layman. . . . The rest of us, meanwhile, struggle with the more routine problems . . . mistrustful of the 'egghead' who has never 'met a payroll' or a sales quota.

"Obviously a bridge is needed . . . bridges across which ideas can travel."

Well, to my editorial friends who have long had to meet the payroll of ideas, this new *Post* approach was significant in its acknowledgment of the importance of the thinking, articulate minorities. My company's experience in the Manresa situation was a flight into the area of ideas. It was an indication of the importance of thinking minorities in their formation of opinion and action.

Yet I do not believe that our industry can move forward area by area. I do not believe that the best of local, public understanding can be simply added up to a national total.

There are people here today, I am sure, who honestly believe that the best of all national programs is a composite of good local operations. I can agree that no national programs can succeed without honest local exemplification. But I do not think that we can satisfy our national necessities by simple addition of local accomplishments.

Certainly, each of us is bound to defend and project our common concepts in our own areas, but there are national needs which are more than the sum of all our Manresas.

The way in which our industry carries on its national program is always a subject for lively debate. It is not my purpose today to argue the merits of how it is being done or how it might be done better. I do, however, want to express my own belief that the existing arrangement of four national activities, each with specific jobs to do, offers a flexible and effective means of working toward our objectives. Maximum progress can only be made, however, by active participation in all four. We are a long way from that goal as is shown by the following tabulation:

Companies who are members of EDISON ELECTRIC INSTITUTE, ELECTRIC COMPANIES ADVERTISING PROGRAM, PUBLIC INFORMATION PROGRAM, and the NATIONAL ASSOCIATION OF ELECTRIC COMPANIES serve 35.7 per cent of all customers of companies having more than 1,000 meters.

Companies who are members of THREE of the above groups serve 33.4 per cent.

Companies who are members of TWO of the above groups serve 14.3 per cent.

Companies who are members of ONE of the above groups serve 14.7 per cent.

Companies who are members of NONE of the above groups serve 1.9 per cent.

Few Know Small Cost

While only about one-third of the industry's customers are now served by companies who are participating in the four national organizations, I would like to point out that, if those companies who are now members of three of the four became members of the fourth group, the proportion jumps to well over two-thirds, a very healthy majority. Because I am continually surprised to find how few of our utility people know what the cost of participating in these national activities is, I am going to give the

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Three-Legged Stool

(*Continued from page* 196)

We say in regulation we are aware of the fact that the electric industry is experiencing a tremendous growth. We say we realize that adequate financing for this growth must be provided. If we are to implement this realization, we must take a new look at regulation.

One instance is that of property held for future use. Once regulation can concede that our economy is in a normal state of continuing inflation, the conclusion is inescapable that prudent management must invest in land today for the construction of facilities years hence. Such land should be included in the rate base.

The benefit of such farsighted action to the consumer is obvious once we assume that a substantial portion of the consumers will be the same when the property is purchased and when the new facilities do come into operation. With the rate of growth predicted for the electrical industry for the next twenty years, I believe this assumption to be valid.

Regulation and Inflation

Inflation seems to me to be a normal attribute of our economy. The only change we encounter is one of degree. Regulation must come to grips with this problem. Where I previously referred to stable earnings for the investor the stability, to my mind, must be based on present purchasing power of the dollar. Attrition, economic depreciation or whatever term is utilized to define the effect of inflation on the purchasing power of the dollar must be considered in rate making if we are to be equitable in our treatment of the investor.

So far we have no final answer on the treatment of the problem. It seems that solution must come through the rate base valuation or through the rate of return. The problem can be simplified if we acknowledge that inflation is here to stay rather than attempting to find solutions based on the theory that inflation represents a temporary maladjustment in our economy.

The privately-owned electric industry does indeed rest on the support of the investor, the consumer and regulation. Without the combined support of these groups, the structure will immediately collapse. The utility industry as a public service enterprise must play the game with all of its cards on top of the table. The privately-owned electric industry has up to the present done a truly magnificent job in meeting the needs of the nation during a rapidly expanding economy.

The job is not yet done, the race is not over. Now is not the time to admire your laurels. It is a time for greater endeavor, more foresight in future planning to assimilate nuclear energy and a time to educate the public to the contributions made for their benefit by free enterprise intelligently managed. It is a time to realize that only with the support of an informed public and of sound, well-qualified regulation can the predicted gains of the industry become reality.

Consumers Power Wins Reddy Kilowatt Annual Report Contest for 1957

THE Consumers Power Co. of Jackson, Mich., was the winner of the Reddy Kilowatt Annual Report contest for 1957, it was announced at the 26th Annual Convention of Edison Electric Institute.

Reports Picture Future

In commenting on the award to Consumers Power and on the winners in various classes of electric utility annual reports, the contest judges said that they "were particularly impressed by reports that gave the stockholder some idea of what might be the picture in the year ahead."

Class winners of Reddy Kilowatt awards included; Wisconsin Electric Power Co., Milwaukee; Oklahoma Gas and Electric Co., Oklahoma City; Kansas Gas and Electric Co., Wichita; Interstate Power Co., Dubuque, Iowa; Nova Scotia Light and Power Co., Halifax; Central and South West Corp., Chicago; Arkansas Power and Light Co., Little Rock; and the Rockland Light and Power Co., Nyack, N. Y.

Honorable Mention

Awarded Honorable Mention were: Philadelphia Electric Co., Philadelphia; Connecticut Light & Power Co., Berlin, Conn.; Northern Indiana Public Service Co., Hammond, Ind.; Arizona Public Service Co., Phoenix; Washington Water Power Co., Spokane; Rockland Light and Power Co., Nyack, N. Y.; Public Service Co., of New Mexico, Albuquerque; British Columbia Electric Co., Ltd., Vancouver; Middle South Utilities, Inc., New York City; and American and Foreign Power Co., Inc., New York City.

Coffin Award

(*Continued from page* 178)

The Coffin Award, presented annually as a tribute to the memory of the late Charles A. Coffin, founder of the General Electric Co., was established in 1922.

Consisting of a gold medal for the winning company; and $1,000 for the employees' benefit fund, the Coffin Award has acquired national prominence in the public mind as well as in the electric industry for its significance in recognizing conscientious service and progressive development.

The award was presented to Philip A. Fleger, Chairman of the Board of Duquesne Light, by Robert Paxton, President of General Electric.

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The Countdown to Oblivion

By Robert R. Gros

Vice President, Pacific Gas and Electric Co.

An address before the Twenty-Sixth Annual Convention of the Edison Electric Institute, Boston, Mass., June 11, 1958

ON a day such as this in Boston it would seem discreet for a proletarian from the burgeoning but relatively juvenile West to recognize the impropriety of attempting to deliver a sermon.

Devil and Daniel Webster

Indeed, in these hallowed surroundings which legend alleges once heard Webster test and best the Devil himself with mortal eloquence, one must take care not to commit the impertinence of drowning facts with excessive oratory.

This is neither the occasion nor the proper audience for a jousting *with* the Devil. Nor have I the temerity to regard myself as a peer of the immortal Senator Webster, and thus singlehandedly able to slay the infernal spirit. But I do intend to discuss the Devil. And there immediately is the very root and seat and crux of the problem of utility public relations. Here again in Boston, as on a thousand other days in a hundred other cities, is a hallful of utilities executives talking to ourselves about the Devil.

Gentlemen, allow me this immediate assertion: So long as we just sit and talk about Old Man Devil, we are wasting our time! Where would the soul of Jabez Stone be today if Daniel Webster had devoted all his energies to *discussing* the Devil with his own friends?

Jabez Stone's soul would be burning right square in Hell, that's where it would be. And that's right square where the heart and soul of our electric utility business is going to be if we don't get our $200 suit-bottoms off our $300 swivel-chairs and go out and battle the Devil on the playing fields of purgatory.

Our Devil: Socialism

We in this industry are intimately acquainted with our Devil. We know him by a pseudonym: socialism. But name it what you will, socialism is still "ancient tyranny in modern disguise," as Admiral Moreell so aptly put it.

ROBERT R. GROS

Yes, indeed. We know his name. At our advancing ages socialism has all but replaced sex as topic "A." And just like sex, all we ever do in our twilight of youth is talk, talk, talk to ourselves.

Well, welcome to the class reunion. Here we are again.

This is the world series after half a hundred intra-company meetings every one of us has attended this year in our own leagues. On such occasions we are pathologically introspective. We usually note with alarm and view with distress. We admonish each other, "be aware of this and beware of that." We expose the sinners and deplore the Devil's hold on them. We castigate Old Devil Socialism in the plainest possible terms, watch every man in the room nod in solemn agreement, and then rush off to lunch, closing the issue with a smug observation, "I think we really started something against the Devil's public-power playboys this morning."

I've done it a thousand times. And so has every last one of you!

But let's look at the record. Since the war, our victories have been mighty few and far between in those battles where we were trying to take customers away from so-called "public power." Except for the real good one that Fighting Kinsey Robinson racked up out in Stevens County, Washington, a couple of years ago, we haven't put a real big inning up on the scoreboard in 15 years. And for every Hells Canyon there have been at least two reverses on the other fronts.

Masses See No Evil

The record shows nothing to indicate that the great mass of the electric-power-consuming public in the United States recognizes anything evil about public power. In the generation now reaching adulthood—even among those reared in the most conservative communities — there is no substantial thought that government ownership of utilities is inconsistent with the American system of incentive capitalism.

Do you doubt me? Please go out and interview a hundred college graduates of 1958; then decide whether I overstate the problem. Talk with the next 100 lawyers who pass the bar in your state; then assess the position of our industry. Chat with the next 100 clergymen ordained in your service territories, and see how well our detractors have done their work. Next check with the teachers in your city. Yes, and the small businessmen and the farmers—and don't overlook the housewives.

In a recent Opinion Research survey, business ran a poor third on the question: "Who contributes most toward improved living standards—business, government or union leaders?" Among senior high school students surveyed at Purdue last year, most said that corporate business is bad for the country; half thought that "taking from the rich and giving to the poor" would eliminate economic problems.

Few Hear Our Messages

Plainly, far, far too few are heeding — or perhaps even hearing — a word we say on the perils of socialism. We've been talking to ourselves

too much. And today nearly one in four among America's kilowatts is generated by government. Are any of us so naive as to think that this fact has frightened or worried anybody outside our own industry? It should have, but it hasn't.

And while the percentage of public power capacity rises and ours diminishes, we are successfully branded in the public mind as the recipients of a gigantic "giveaway" of power resources. The facts prove it is our adversaries who are the recipients if there is any giveaway, but the public believes it the other way.

See Ourselves as Others Do

I wish my conscience did not force me to think such thoughts and say such things. But say them I must because I earnestly believe that they barometer facts we dare not ignore through wishful thinking. Nor am I presumptuously finger-pointing, without also indicting myself. But I urge you—and intend myself—to strive always "to see ourselves as others see us"—and then to do a whale of a lot more about it.

Let me put my conviction as bluntly as I can. If we don't do something about this situation of public opinion *now*, our industry as we know it today cannot survive more than two more generations—three at the most. If we do not respond with hardheaded acceptance of reality, then the heretics, the economic meddlers and the Socialists will take our children's birthright away. Indeed, our children will help them. Ah, yes, the venom of socialism is subtle and insidious—yet it can be fatal.

Countdown Is at Eight

These years could become the years of our countdown. They could be the declining cycle of digits along an oak-paneled, deep-carpeted, genteel COUNTDOWN TO OBLIVION.

And let's not delude ourselves that we presently stand at 10—at the top of the countdown. The fearful statistic—that a fourth of America's power is government generated—means that the echo of eight is dying in the distance behind us and that seven is half risen in the throats of our destiny. Let's make sure that by the time EEI convenes in 1959, our enemy shall not have rolled a "natural" seven.

Only two more counts tip the balance of power. *Then we should be the minority!*

Can we stop it? I used to be confident we could. Now I know that only the firmest, strongest, most hardheaded and realistic effort can turn the tide of public opinion in our favor. We *can* do it, but not with the caliber of results we are achieving through our efforts today. That must be obvious to us all.

The first thing we've got to do is quit pontificating. We must stop blindly depending on "Spirit of Public Service" and "Tradition of Loyalty" slogans that clutter up our public relations efforts. We ought to recognize that the employee and management attitudes that go with them form a kind of Maginot policy-line utterly without value as an offensive weapon. Why use intangibles that float around the upper stratosphere when we have provable, earthy, "What's in it for me?" facts to offer?

We must recognize this unhappy truth: To the average customer there is not a bit of difference between public and private power service. When he flips the switch, he expects the lights to come on. And they do! That's service enough for 90 per cent of people—and that's more than enough votes to win any election.

In place of lofty pontificating let us go completely earthy. Let's talk *to* and *with* people instead of just *at* them.

It's past time for us to quit writing speeches and advertisements that nobody but we and our boards of directors can understand. It has been proved that our ads on such subjects as TVA are so garbled by intra-industry jargon that many people who read them believe they are promoting public power.

"Yes," you say, "but these matters just can't be explained simply." Well, I agree our story is complicated, but if we don't figure out how to make it simple for Joe Switchflipper we're doomed. Unless we make it as simple, understandable and attractive as a Maidenform Bra ad, we may just as well not bother to run the ads at all.

An advertising man told me recently of an electric company president who insisted on a 36-word copy message on a 24-sheet billboard, located along a high-speed freeway. When the account man recovered his voice he explained that no motorist possibly could read it to the end and live to remember it.

"I know," said the executive, "but we'll just *feel* better if the case is stated fully." I am sure he feels wonderful, but he impressed precisely nobody.

Praise for Reddy

Our advertising job is not hopeless, though. Here's an example on the plus side — Reddy Kilowatt. That ubiquitous, often amusing and always clearly understandable symbol of our industry is usually remembered when our corporate-toned prose is forgotten. We heard a shocker in Pittsburgh at the Public Utilities Advertising convention last month where a panel of college students declared that none of them had been attracted to any of our so-called institutional advertising. Indeed, the only utility advertising they remembered at all was Reddy Kilowatt, who was pegged thoroughly in their memories as a warm, appropriate symbol of our industry. I am told that parallel remarks were made at a similar panel in Ohio the month before.

Let's take a moment's look at ECAP for another reason we must tell our story more directly and in earthier terms.

Those able and dedicated advertising men, Ed Dunning and Dwight Van Meter, studied the breakdown of the public opinion surveys regarding business ownership of utilities. To the amazement of most of us, they discovered that women, bless 'em, are far less inclined toward private ownership than men.

And why haven't we been getting our story over to the ladies? Because we've forgotten—as we too often do in our personal lives—that you can't make effective love to a gal with cold statistics and logic.

Reach the Distaff Side

We men ought to know by now that women are far more reachable through an emotional approach that talks to their hearts as well as to their keen minds. Now that the figures have reminded us of that fact, ECAP has added two women's magazines to the schedule and is embarked on a warmer copy approach. But it will take a lot more than two magazines to tell our story

effectively to this women's audience that counts so much. The emotional approach is seldom popular with those of us in management and our directorates. But until we stop writing "dignified" copy for ourselves and give our advertising experts some freedom to start talking the people's language, we'll never get a really big audience for the messages of our individual companies or in our collective efforts. Maintaining so-called dignity is less important than surviving!

I cannot leave ECAP without complimenting the great job ECAP does in building a broad foundation of public education about America's business-managed power companies. The proof of the pudding that the campaign is doing a lot of good is attested by the constant chorus of innuendo from our detractors and their frenetic efforts to have ECAP expenditures disallowed tax-wise. The program obviously is doing an effective job.

There is no question in my mind, "Why ECAP?" — only, "Why not more ECAP?"

Our story can be told plainly. But the fact is, we in the industry just can't stand to keep it plain. Whether we admit it or not, too many of us are the victims of wishful thinking. The average management man prides himself on being a "hard-headed realist." Yet the election returns themselves should prove that he is not nearly so hard-headed or realistic as the American farmer, labor unionist or politician. He isn't in touch with the people because he has too little contact with grass roots.

In our industry there is still too much reliance upon "management intuition" — instead of recognizing that a public relations problem may be just as tough as an engineering, production, financing or sales problem, and it needs the same careful analysis, research, planning and decisive action.

Yes, we must recognize and utilize the expertness of the "PR man." Successful public relations work depends to a large extent on how management uses its "PR men." Are they merely editorial supervisors of advertising copy and publicity material, making sure that clever and proper language is used? Are they only abject flunkies to alibi any kind of a policy which management decides to carry out, regardless of public opinion? Are they just nice, congenial hand-shaking and back-slapping machines who make a lot of friends but do not influence many people?

Give PR Men Responsibility

If your PR man does not prove his mettle, then fire him and find a fellow who warrants your confidence. But, when you do find him, in heaven's name, give him authority equal to his responsibility. PR men can do their best job when they are consulted by management before and not after "the hour of decision." We must call them in on the take-off and not just for the crash landing!

Public relations is a broad and comprehensive field and a true expert must have a sound, practical knowledge of the human equation. But once he has proved his expertness, his advice ought to be heeded instead of being side-tracked for the horseback opinion of the engineers, lawyers and auditors — each of whom may possess top-flight competency in his own field, without necessarily knowing a thing about public relations. And, of course, the hardest to cope with is the senior executive who comes in with alleged "public reaction" to an ad—based on a one-wife survey.

Instead of publicity having to clear legal departments, to avoid possible liability for some fanciful damage suit, maybe we should consider making some of our legal activities clear with public relations to avoid the loss of millions of dollars in good will. Too often we win a legal skirmish but ultimately lose the more vital public opinion battle. I know of a utility which slapped a $500 damage suit against the estate of a popular former football star who was killed when his car hit a power pole. He left a widow and two young sons. The law department of that company was surprised when the local newspaper editorialized vociferously against the utility.

The Tax Question

Now let's look at the PR angle to a topic about which we do an awful lot of hollering—the tax question.

There is no evidence anywhere that the tax differential ever has impressed a single customer not otherwise influenced.

This is as true as the notes of liberty's bell, despite the millions we've spent telling the public that we pay taxes by the billions of dollars and public power agencies pay none.

Why is the argument a dud? Because everything we say on the subject sounds as if we're either complaining or bragging—or both. What is the reaction of the consumer?

He says, "What's so noble about paying taxes? I pay mine, too — plenty. I'd like to see somebody get *out* of paying taxes."

Unpatriotic? No. Just plain human nature. The public is not going to love us just because we pay taxes. And they're not going to refuse to accept service from a public agency at mighty attractive rates just because the PUD, or whatever it is, doesn't pay taxes. To expect any other result would ignore the natural laws of human psychology. We should not waste our time on this theme, except where necessary to expose phony "yardsticks."

Plainly, the tax war must be fought in the halls of our legislative councils —Federal, state and local.

There is no need for me to belabor you with statistics. We all know the issue between capitalism and socialism. We know who our enemies are and we have no difficulty penetrating the disguises behind which they masquerade. We know their goal is to remake our nation in the monstrous image of the all-powerful socialist state.

I suggest an example not too far removed from old Daniel Webster and his bout with the Devil. I have in mind the success of the Rev. Billy Graham, who now is packing people into San Francisco's Cow Palace as he has filled arenas elsewhere. It is no credit to our Western Baghdad-by-the-Bay that he says he found sin more rampant there than almost any place else in America, I know. But that fact makes all the more pertiment my point that Billy Graham doesn't waste his time talking just to the believers. As a missionary, he works primarily among the nonbelievers and those who have strayed from the fold.

We in the industrial public relations field talk a lot and say a lot. We are missionaries too. But too often we say our piece only in our own temples. We can take a lesson from Billy Graham in speaking out bluntly and courageously

(*Continued on page* 240)

Greetings from Latin America

By Jose R'vera R.

Director Administrative, Compania Mexicana De Luz y Fuerza, Motriz S.A.

Excerpts from an address before the Twenty-Sixth Annual Convention of the Edison Electric Institute, Boston, Mass., June 11, 1958

I BRING you the greetings of Latin America. If we look at Latin America as it is today, you will agree with me that it represents the third step in the development of this great continent. First, the United States, a number of decades ago boomed into the great nation it is today; then Canada; and now Latin America is the third step of development. You will agree that our countries have faced the same development problems and will also agree with me that while we have the same problems, we can look toward the same solution; and that is one thing in common which gives us hope that our achievements will be similar.

Turn Back the Clock

I don't think my comparison is wrong because it doesn't take much imagination to bring the clock back a few decades and think what happened in this great nation around the 1850's. That is happening in many Latin American countries right now.

About two years ago, "Pat" England came to Mexico unheralded and unannounced. He told us the great story of the development in the United States and the marvelous doings of the Edison Electric Institute.

Right then we Mexicans conceived the possibility of doing something similar, not merely admiring and envying the American organization of this great electrical industry. Some of us had the same idea, that we have an organization formed for the Latin American countries whereby we could pursue the same purposes you have, and this already has happened. We must give you our gratitude for your assistance and cooperation.

Ike's Words Inspiring

Only yesterday it was pointed out to me that Mr. Eisenhower said, "Let us engage in better planning and promoting the common interests of the welfare of our countries." I think his words are inspiring and some of the things are already happening in this continent. They are bright spots indeed in this troubled world.

The Latin Americans want peace and prosperity, and a base for happiness.

We of the electrical fraternities should now be thinking of planning for a Pan American interconnected system as a common denominator for prosperity and a true understanding of friendship. When this happens, we shall fully affirm Pan Americanism to mankind. I would like to say a few words on what we Latin Americans expect of you Saxon Americans. We don't want you to play the role of rich uncle, and we don't like to play the role of poor nephews. We would rather have you play the role of big brother, and we the younger brother.

We would like for you, indeed, to share your experiences not only to guide us with good counsel in all our endeavors, but in saving us from making the same mistakes. We don't want you to spend your tax money in Mexico, but of course, we need the capital. But we need the capital in good sound enterprises. That would be of as much benefit to you as to us. If that cannot be met, we do not want your money. Indeed we want you to give us the benefit of your experience, but please when you send somebody to Latin America to represent your interest, do not choose a junior executive; do not choose the man you want to discard, but be sure you send the best because that man will have the double responsibility of representing the business and representing the country. But above all, what we don't want you people to do, or this country to do, is turn its back to the freedoms that made this nation great. Your gallant fight to preserve and enhance those precious liberties is fully appreciated abroad by those who are also engaged in the same endeavor. Latin America cannot afford a bad example from Saxon America in these troubled times of continuous threat from those who do not want us to continue in the path of progress.

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A Broad-Gauge Employee Information Program

By Chas. E. Oakes

Chairman of the Board, Pennsylvania Power & Light Co.

An address before the Twenty-Sixth Annual Convention of the Edison Electric Institute, Boston, Mass., June 11, 1958

ALFRED NORTH WHITEHEAD once said, "In the conditions of modern life, the rule is absolute: the race which does not value trained intelligence is doomed."

I think we are all becoming very conscious of the reality of this observation. The happenings of recent months in the race to conquer outer space have made clear the incidence of scientific knowledge upon our national security. The need for greater technological understanding and better practical application of scientific principles has become very clear and the urge to acquire such knowledge should be fostered.

These and other past events have served to bring forcibly before us the truth of this statement in its broadest aspects. This intense interest in scientific progress has for its basis the preservation of America and its institutions. But there is a lack of real understanding of the institutions that made America great. For years, there has been the tendency to proceed on the theory that widespread and complete understanding of the workings of our American system was, perhaps, not wholly essential for the mass of our people. Now, we fully realize that this is not so. That this mistaken notion is being recognized is fortunate. But even more so is the fact that the problem of spreading the knowledge of what we have here in America now is getting the more concerted attention it deserves and by those who have the understanding, the ability and, presently, the will to solve it.

We, in our industry for many years, have been in the first line of an attack by those who would like to remold the structure of our American society. While we have been sensitive to their motives, we have been somewhat less than completely successful in translating their objectives effectively to the public mind. Couched in obscurities

CHAS. E. OAKES

made possible by the complexities of our modern society and abetted by the false cloak of promoting the public welfare, these advocates of federalized human endeavor have accomplished much.

Is Our Enterprise System Free?

Without passing judgment on the motives of these people — whether originating from ignorance or conceived in malice—the severe depression of the '30's and the subsequent world conflict afforded them unusual opportunities, under the guise of emergency, to force the nation further toward restriction of the individual to the point where today we may well ask: Is our enterprise system free?

Democratic Ideals Contaminated

The results can be found in the infusion of governmental control concepts into all parts of our political structure and our economic life, with the consequent contamination of our democratic ideals and the erosion of human rights. We see the ever-growing assumption by the Federal government of more and more authority in fields traditionally considered as rightfully within the province of our state and local governments and of ever-greater domination over affairs affecting the individual.

We in our industry have been in the forefront of this conflict of philosophies. And we are deeply concerned as to the outcome and the consequences. I think I can say without equivocation that the leaders of our industry fully realize that our existence in a free competitive society embraces ethical responsibilities which can not be denied.

In this struggle, we are faced primarily with dealing with the most dynamic most powerful and important things in the world—ideas. And what kind of a nation we become depends greatly on people—and on their economic beliefs and attitudes. What people think and feel finds reflection in our national policies, in the laws and rules under which the economy of the community and of the nation are conducted.

To the average customer and local citizen the employee is the company. His attitudes, his knowledge of the company and the interest he displays in the company and his job find expression in the stature in which the company is regarded by the public.

The employee is not only a company member but he is also an important member of the community in which it operates and in which it desires favorable acceptance. Management in industry is increasingly aware that the employee is a key figure. But beyond the narrow limits of evident corporate self-interest lie the broader ones of state and nation. And so we come down to the fact that what kind of nation we are to have depends greatly on the individual—in our case, the employee—and on his economic beliefs and attitudes. Therefore, the electric utility industry has an obligation to inform first its employees and then the public itself. We have an

immense stake in preserving our business from government encroachment and we have the means of accomplishing this objective as we have what is perhaps the closest continuing relationship between employee and public of any business in America.

To educate and to stimulate the interest of the employee in the economics of the American way and of our industry is neither simple nor easy. It calls for contributions from our best and most thoughtful minds. It will take time, money, widespread effort and expository talents of high order.

Preservation Is a Must

We are firm in the belief that this task to preserve the electric utility business is a must, and, indeed, in the final analysis we can look at the education of the public of our economic processes through our employees as a very real contribution. It requires a herculean effort to alter public attitudes even slightly. In spite of what has been done in the past, our industry-sponsored polls* continue to show that the public believes that:

1. Though there has been some improvement in the sentiment favoring business ownership of the electric utilities—yet *there is still over one out of three who favor government ownership.*

2. Though a good proportion feels investor ownership of the utilities is right—yet *there is still about an equal number who can see no way in which they are concerned.*

3. While approval of government power, TVA for example, has declined some since 1947 and with more people knowing about TVA than in 1953—yet *there are more than one out of three who say they have no opinion, neither approve nor disapprove.*

4. Although a good majority say that socialism would be bad for the United States — yet *only a little more than half think that if the Federal government produced all the electricity in the country this would be a move toward socialism.*

These opinions can only be due to lack of understanding by the public on subjects of vital concern to our industry. I cite these few instances simply to indicate that there is a major job to be done.

Perhaps no other industry has done so much to bring about a rise in the social standards as has ours. And there is probably no other industry better situated to bring before the public the facts necessary to dispel the misconceptions presently persisting in the public mind.

Are our employees in the position to give the public this information? Recent inquiries of employees by Central Surveys about employees' knowledge of our business show the need for improvement. They found that:

While three-fourths of the employees of our companies say they have read something about the use of atomic energy to generate electric power—yet *only about one-fourth recognize the atom as a new fuel source and a conserver of our natural resources.*

While the majority of our employees know that TVA pays no Federal income taxes—yet *only one-fourth know that TVA pays no interest on the funds provided by the nation's taxpayers.*

The word "preference" is not well understood. Only one-fourth check the right answer; *about as many think that "preference means providing power to hospitals or schools ahead of other users, and again about as many say they don't know what it means.*

The word "partnership" is even less understood and in defining it *only 3 per cent of the employees check the right answer.*

With the evidence before us that an information program for employees is an absolute necessity, what can we do and how can we go about getting this job done?

Employee Program

An employee relation and information program should be considered as a most important phase of a company's work. The department head operating employee and public information programs should have access directly to the top executive in the company and preferably should have executive standing paralleling heads of other departments. This department should also presumably concern itself with employee selection, employee training, position evaluation and classification and employee appraisal.

The basic concept of an employee information program is to fortify the employee with information so that he will be first a more efficient company employee. In turn, he becomes an ambassador of good will for the company and a reliable source of information to his neighbors, his friends and to the general public on fundamental economic principles of the American enterprise system. Inherent in the process, he will be well informed on every phase of the company's operations and its problems.

Our Economic Philosophy Essential

It can not be assumed that employees generally have a thorough knowledge of the American economic system. The subject generally has not been taught effectively in the secondary school systems from which the great majority of our employees is drawn. Therefore, we should start an employee information program with a good grounding in the essential facts of our economic philosophy.

There is an amazing ignorance of the basic facts with respect to the profit that is being made by American business. Many polls have been conducted which indicate the belief that 25 per cent profit is normal as compared with the more realistic figure of 4 per cent to 6 per cent. In a study of the American economic system, the discussion should include such fundamental subjects as profits and the division of income, with particular reference to the role that labor plays and the proportion that labor receives; a discussion of the machinery of the economic system by which raw materials are converted into the finished product and values are added as they pass through from one process to another; the role that government plays in the economy and the necessity for and the impact of taxes.

Such a discussion should include the creation of wealth and its sources. All these elements and many others must be encompased in any worthwhile program for presentation to employees. One such program has recently been acquired by the Edison Electric Institute for use by its member companies. This is the "American Economic System," embraced in a 96-page illustrated booklet containing a six-hour employee information course together with a kit of demonstration materials, and material for a training school for conference

*"The Public Appraises the Electric Industry, 1955"—Opinion Research Corp.

leaders for the conduct of the training program.

It is necessary that the broad areas of economics be thoroughly understood in order that more effective training of employees may be continued in a specialized program relating to the utility business. This is the paramount reason that employees must thoroughly understand the overall American economic system. Not only must they understand these basic facts, but they must also *believe* in them. Otherwise, continued training of employees on the economics and operation of the public utility business will fall on barren ground.

Management must know whether the training given employees is accomplishing the purpose, namely, that their area of economic understanding is being widened. How can we determine that real results are being obtained? This can be done by requiring each employee to answer a set of questions on the subject before the program is started and again requiring the same set of questions to be answered upon completion. In this way a real measurement of the increase in understanding can be had.

Some Adopted Education Programs

Several of our companies have had the foresight to adopt or by force of circumstances have undertaken broad-gauged employee education. They have found them to be a rewarding experience—both in terms of settling troublesome local situations and in cementing the valued ties between management and employee.

Comparative surveys have shown what employees absorb and the better understanding gained on important issues as against the knowledge of others not similarly schooled.

Take, for example, one company's experience when recent acquisitions of properties afforded a direct measure of comparative understanding. In the new areas acquired, an educational program had not been in effect as it had among the other employees. They found that:

One-fourth fewer employees in the new areas than among company employees as a whole knew that TVA did not pay the same taxes as the electric companies.

In the newly acquired areas one-half more than the company average had no opinion as to whether TVA paid any interest on government money it uses.

Of those who did answer that TVA has not proved satisfactory as a "yardstick" for measuring rates, a smaller proportion in the newly acquired areas gave such specific reasons as the tax and interest subsidies TVA enjoys.

Less than half as many in the new areas as the average knew that REA co-ops and municipal systems have preference over the electric companies in buying power from Federal projects.

Twice as many in the newly acquired areas as the average said that REA co-ops and municipally-owned systems pay the same taxes as the electric companies.

About one-third fewer than average said that the best way to control floods and conserve water is by small dams and soil conservation methods on the small watersheds rather than by large multipurpose power generating dams on the main streams.

Fewer employees in the areas recently acquired said they had heard or read of the proposals for TVA revenue bonds, fewer know about using the atom to produce electric power and in one of the newer areas, an average number, and in the other, twice the average proportion said the Federal government should build nuclear generating plants.

Experience in these instances shows that where their employees have become thoroughly informed they have a higher record of discussions of company and industry problems with other people. This is highly significant and conclusive evidence that, given an informed personnel, a vast number of the public can be reached in a friendly intimate way. It is in such an atmosphere of friendliness that public approval of our business can be cultivated and activated most readily.

Many Methods Used

A good many methods have been tried for imparting information to large groups. Perhaps the most successful one is the lecture and group discussion method. Groups of employees of perhaps 30 to 40 are brought together on *company time* and a program undertaken by trained conference leaders and lecturers, who are preferably employees from supervisory ranks and generally in the middle strata of supervisory levels.

The training of the conference leader is a most important phase of this operation. He may devote full time or part time to the program, depending upon how the particular utility management desires the program to be set up. It can not be emphasized too often that these educational programs be done on company time. This gives it stature and serves as notice to the employee that the company considers it important business. While employee turnover in the utility business is relatively low, nevertheless in the course of a few years a substantial number of new employees will have joined the company and they too, at some suitable time after becoming an employee, should be given this educational program. Thus, an employee information program becomes a never-ending job of education.

After employees have been given the essentials of the American economic system, the program should then be expanded to cover the public utility business in general and finally take up the many facets of the company's affairs in particular. These programs should be comprehensive and cover every phase of the company's operations.

Recommendation

I would recommend that the preparation of an employee information program on the utility business and Your Company be introduced with a statement of and a discussion of the "Objectives of America's Electric Light and Power Companies." This is a statement of the principles and policies intended as a guide to show how the electric power industry can continue to operate within the framework of the free enterprise system. The statement was recently adopted by the Edison Electric Institute directors for the use of the management of member electric utility companies. These eleven objectives are:

1. To Serve the American People with a Dependable Supply of Electricity to Meet Their Needs.

2. To Plan Effectively to Meet Future Requirements.

3. To Sell Electricity at the Lowest Practical Price.

4. To Maintain Adequate Earn-

ings and a Sound Credit Standing.

5. To Raise at the Lowest Practical Cost New Capital Required for New Facilities to Serve Their Customers.

6. To Operate Under the Present System of Government Regulation.

7. To Work with Agencies of Government In Carrying Out Appropriate Functions where Electric Power is Concerned.

8. To Further the Application of Electric Power to Human Needs through Research, Promotion, and Cooperation with all Segments of the Electric Industry.

9. To Operate within a Framework of Good Employee Relations Policies and Practices.

10. To Operate as Good Citizens Both Locally and Nationally.

11. To Help Develop and Strengthen the Economies of the Communities Served.

An employee information program should include a history of the company, a description of the geography of the company's operations and of the physical property and how it is operated. This would entail a description of the company's organization and how the departments are interrelated and how each job fits in with every other job. Such a program should include an analysis of the company's revenue and expense components and of its balance sheet and of the methods which have been used in financing the company's operations.

Economics Should Be Discussed

The economics of the business should be thoroughly discussed; who its suppliers are and where its materials, supplies and fuel are secured; and a discussion of the dollar flow back into the community of payrolls and supply purchases, which directly affect the economy of the area served. A discussion of the company's relationships at all government levels and the importance of the company in helping to solve community, industrial and economic problems are other subjects. The methods by which the company communicates with its customers and the company's policies and programs which it has developed in rendering day-to-day service quickly and effectively and in emergencies would form an important part of such a program.

Finally, a well-rounded employee program should include a thorough discussion of the relations of government to our business. Perhaps this should be introduced by an elementary discussion of American Freedoms including the history of freedom, the guarantees afforded by our constitution and the methods which must be pursued by our citizens to keep our freedoms from being invaded by delegated authority.

A thorough analysis of public power as it applies generally to the public utility industry in the country and specifically its effects, short and long range, on the employee's own company; the preference clause and how it works; tax and other subsidies which are offered to public power; all should be carefully and thoroughly presented. And, of course, Atomic Power and its impact and potentials should be included as well.

In any presentation of an employee information program, the employee's knowledge of the subject should be tested in advance of the introduction of the subject and should be again tested upon the completion of the program. It is only by this method that the management can be assured that the training processes have been effective and strengthened in those areas where deficiencies may show.

To do less than a comprehensive job in employee training will fall short of the objective. And to do a comprehensive job will take time in preparation and in presentation. The company's day-to-day operations must continue. The employee's interest must be aroused and his interest maintained. Too long an interval of time between presentations will serve to dissipate interest and too short an interval may interfere with the company's operations.

The suggestion has been made that an hour a month for the general employee is about the maximum interval that should be set in order that the total job can be accomplished in a reasonable time.

30 Sessions Minimum

What is a reasonable time? It will be difficult to compress the wealth of subjects into less than 30 sessions. This would require 2½ years for minimum complete coverage at the rate of one session per month for each employee group. I have the feeling that once we have proceeded this far, the very great value of these efforts will become apparent and new areas of effective understanding will claim attention. Thus again the enormity of the job and its importance is emphasized.

Our supervisory employee should not be overlooked in setting up an employee educational program. Every company has a program, formal or informal, for the training of supervisors in the operations of the company's business as such. Many companies do not have an education program of training supervision in advanced economics and practices concerning business generally and specifically applicable to the utility business. The Public Utilities Reports "Guide and Leaders Manual for Supervisory Employees of Utilities" is an excellent course covering 50 subjects on the nontechnical side of our business. The United States Chamber of Commerce has a study course for supervisory employees consisting of 17 pamphlets on the American Competitive Enterprise Economy for use by economics discussion groups.

Employee Education's Importance

Employee education is of such importance that it should be lodged in a department which is sufficiently staffed to train the conference leaders and lecturers who are to be charged with the responsibility of carrying out the program. This work should be given status at the vice presidential level. This will serve to emphasize generally to the employee and also the public the importance of this phase of the company's operations.

The most important long-term problem facing the electric utility industry is the continued invasion and growth of public power in our field of endeavor. In the long-term view, Congress must answer to the weight of public opinion and an informed public opinion starts with the individual voter. The individual voter is also our customer. Every employee of a public utility should believe in the cardinal principle that electric service to the public can be rendered better, at the lowest over-all cost and more efficiently by private industry than a government agency. The employee is the key to a properly informed public of these facts.

It is our duty as executives and supervisors in this industry to assemble and present the necessary facts.

to see that every employee is completely informed and to instruct him in the manner and ways of transmitting these facts to the public.

Few Customers Contacted

National surveys show that only 8 per cent of our customers say that they have been talked to by an employee. This 8 per cent should be advanced to 75 per cent in a five-year program. An employee information program is the one most effective way to accomplish the job of stemming the tide of invasion of public power in our business and of preserving the American economic system. If the utility industry succumbs to the public power threat, then the natural gas industry, the oil industry and other extractive industries will be next in line.

If an employee information program is placed in charge of top level management, is adequately staffed, and a thorough training program instituted to cover the entire personnel in every company, the morale and esprit de corps of every utility will be greatly improved and the level of understanding by the public of the electric utility industry will be immeasurably increased. If we can reach a goal whereby 75 per cent of our customers know and talk to our employees, who are thoroughly trained in the knowledge of the American enterprise system and of the public utility industry, we can solve the problem of invasion of the government in our business and reap the benefits of an organization with an ever-increasing efficiency in the conduct of our business in service to the public.

Thirty years ago we dismissed lightly the theory that governmental policies were leading to destruction of our freedom. Today we no longer have a theory—we have the condition. Can the already destructive damage be undone? Can further erosion be arrested and prevented? What can we as responsible people do about it? These are the questions I ask you to consider. The problem is up to us and to every thinking citizen.

Employees' Views

Perhaps the most effective effort we can make is to provide the way for our employees to gain a better understanding. Given a better knowlege of our American System and the important role our industry plays in our national scene we should urge them to make their views known to their friends and associates within the civic and social circles their voices reach. They should be encouraged to lend their support to public officials of integrity who stand for the preservation of a free America. We must recognize that it is the decisions of the millions of our people, each exercising his own individual right of expressions that in the end determines the kind of nation we are ultimately to have. Our industry is very close to every community we serve—our employees are a living part of the thousands of communities we serve throughout the land. So we fortunately have the means of reaching into these communities in an intimate way.

Reason Over Force

There is, in my opinion, a close tie between understanding of the issues and good citizenship. And there exists an abiding relationship between good citizenship and improvement in our social and economic system. It takes but a moment's thought to realize that the peoples of the world have maintained dignity and decency in their relationships with others in proportion to the degree to which they have been able to hold to democratic principles. Progress, in its broadest human sense, has been greatest in those countries where reason prevails over force, where the general welfare is paramount and the limited interest of minorities is subordinated.

In the final analysis, the task we face is one for the individual. If we are to meet it successfully we must actually believe in what we say and our beliefs must find expression in action. Apathy and complacence are luxuries we can no longer afford. We must be willing to match by our efforts the fanatical fervency of the collectivist planners who are hard at work—day and night. If we expect to enjoy the blessings of freedom we must be willing to pay the price—to undergo the arduous work of supporting it. This we must do if we are to restore those principles which Lincoln called for: "that this nation, under God, shall have a new birth of freedom."

We are going to need a staggering amount of power in the decades which lie ahead. I believe most strongly that the best answers to the problems of research, technology and indeed all areas of knowledge affecting human progress will be found in what we know as the American way.

We must guard against those erosive forces which unchecked will undermine and destroy the structure of liberty, the process of attrition about which more than 2,000 years ago Aristotle warned when he wrote: "one thing takes the place of another, so that the ancient laws will remain, while the power will be in the hands of those who have brought about revolution in the state."

Horizons Unlimited

The horizons of the future are as boundless as human understanding and free men can make them.

Let us accept the challenge to America's future they present, realizing that "for anything worth having one must pay the price; and the price is always work, patience, love, self-sacrifice—no paper currency, no promises to pay, but the gold of real service."

Is Your Top Management 'Tops'?

(*Continued from page* 211)

objective appraisal. The crux of the matter is that we should be fully aware of the importance of operations improvement and of increasing our efficiency and that its accomplishment should be recognized by management as one of our greatest opportunities and one of our greatest challenges.

That's what can make public utility management more stimulating, more exciting, and more challenging than it has ever been in the history of our industry, both for those of us who have management responsibilities now and for those who will follow us and who will be at the helm of our industry when the first hundred years roll around in 1979. What we do today will determine how confidently they can say then, "Power Is Our Business."

Where Do We Go from Here?

(*Continued from page* 221)

breakdown for our company for 1957.

Cost to The Connecticut Light & Power Co. of Membership in National Electric Utility Organizations for 1957

(CL&P Co. Electric Revenue—$65,437,974; Meters—319,264)

Edison Electric Institute	$14,664
ECAP	24,737
PIP	7,200
National Association of Electric Companies	5,247
Four-group total	$51,848

The four-group total represents less than one-tenth of one per cent of our electric revenue and—as we say about electricity itself—it is one of the biggest bargains in our family budget.

It is evident that we do not need to worry too much about selling EEI to the industry. With a few exceptions, EEI *is* the industry and its value is fully appreciated. Those of us who have played some part in one or more of the other three undertakings are likewise convinced that each has a significant and important role to play.

So I offer my answer to the question of "Where Do We Go From Here and How Do We Get There?" We are seeking, and I believe we are capable of obtaining, far greater public understanding and support of our private enterprise philosophy than exists today. The way to that goal is two-fold—first, doing the best job we can and recognizing our responsibilities as citizens in the communities we serve; second, through cooperative action on all four fronts at the national level. May I urge those of you who are not now 100 per cent in this second category to reconsider your position in light of the present situation.

There is abundant evidence that our industry has made important progress in its efforts to win public confidence. The recent ruling of the Internal Revenue Service concerning the non-deductibility for tax purposes of ECAP expenses which was instigated by Clyde Ellis, Estes Kefauver, et al., shows that the government giant power crowd is running scared. If there was ever a time when a united front at the national level was needed to keep the ball rolling, it is now.

Frank M. Wilkes

FRANK M. WILKES, chairman of the board, Southwestern Gas and Electric Co., and former member of the board of EEI, died May 29 in Washington, D. C., where he was testifying before the House Interior Committee. He was 69.

Mr. Wilkes, born in Salt Lake City, received a degree in electrical engineering from Kentucky State University. He began his career with Western Electric in Chicago and in 1909 joined Public Service Co. of Northern Illinois. Subsequently he was associated with Public Service Co. of Central Kentucky and later the Arkansas Power & Light Co., where he served as commercial manager, operating superintendent, general superintendent, general manager and vice president in charge of operations.

Mr. Wilkes joined Southwestern in 1941 and shortly after became vice president and general manager. He was elected president in 1942. Mr. Wilkes retired as president in 1954 and was named chairman of the Southwestern board.

While he was in office, Mr. Wilkes directed the largest building program in Southwestern's history. He served as chairman of the Southwest Power Pool, formed in World War II to make available for the war effort the pooled capacity of utility companies in the Oklahoma-Missouri-Arkansas-Louisiana - Eastern Texas - Western Mississippi area.

Mr. Wilkes served three terms as a member of the board of EEI, from 1944-1947; 1949-1952; 1953-1956.

Shape of Things to Come

(*Continued from page* 183)

ployee, share owner, and community neighbor—is provided with the facts about those issues that affect the ability of business to serve the people of the United States. This can and should be done on a non-partisan basis.

As a private citizen, the businessman must work for and contribute to the party of his choice, building support for those candidates that best represent his personal point of view. I emphasize "the party of his choice" because there are high-quality candidates in both parties. The best way in the long run to assure good government is to have men of sound and independent judgment in each party.

This discussion of the political challenges has led us to my final point: that ultimately, the future is being shaped in the minds and hearts of men.

Scientists can try to predict what will happen in the laboratories; economists and sales managers can try to forecast the trends in the marketplace; politicians promise the moon with a satellite around it.

But the future cannot be mathematically determined or rigidly controlled. In a free society, the future is shaped by the character of the people. Each of us has a different picture of the future he desires, and none of us can have his way entirely. Yet the faith of the free society is that what does come about, with all its faults, is far superior to anything produced by a centrally directed society.

In this great electrical industry, so vital to the national advance, let us resolve to do our full share to bring about the future envisioned here today. Let us plan, work, invest, produce, and sell confidently, regardless of the passing troubles of the day.

Let us work to accelerate the pace of progress in the laboratories and the marketplace.

Let us work to have the capacity in place and ready for each new surge of national growth.

And let us work to build the climate of public opinion that will preserve and enhance the vitality of free enterprise, in the service of a free society.

The High Cost of Redemption

By Admiral Ben Moreell

Chairman of the Board, Jones & Laughlin Steel Corp.

An address before the Twenty-Sixth Annual Convention of the Edison Electric Institute, Boston, Mass., June 11, 1958

As engineer, naval officer and industrialist, I have long been in touch with the problems of power — its generation, distribution, utilization and, one might add, its socialization. As Chairman of the Task Force on Water Resources and Power of the Second Hoover Commission, I had many opportunities to speak and write about power. Power is the lifeblood of our industrial machine, and what happens to power, for good or ill, will affect all industry.

First Target of Socialists

The power industry has some problems which most other industries do not have, at least to the same degree. Yours was the first target of the socialists. The earliest socializers in this country were strong advocates of public power. There were others who claimed, in one breath, to stand for free enterprise, but who in the next, advocated government ownership of utilities; and they saw no inconsistency in this. As early as 1906 the Federal government undertook to generate and sell electric power. Since that date, government ownership has grown rapidly so that at present Federal projects, built and building, amount to about 15.2 per cent of the country's total capacity. And by 1960, if state and local power projects are included, approximately one quarter of all the power produced in this country will issue from generating plants owned and operated by government.

Government in Business

However, the progressive socialization of your industry is not a problem peculiar to it. The entire country has careened toward socialism during the past half century. The Federal government now engages in several thousand different kinds of business *in competition with its own citizens;* while private business operates in an atmosphere of Congressional criticism, hostile suspicion, controls, punitive taxation and costly intrusions by Federal inspectors. Your problems, serious as they are, are but the advanced symptoms of an endemic disease which afflicts the country at large.

ADMIRAL BEN MOREELL

For more than a generation collectivism has been edging over our landscape like a gigantic ice-cap. Its progress has been uneven, so some of us have been encouraged to think we might escape personal disaster by obtaining a politically privileged sanctuary. But it is now clear that not one of us will save his skin unless there is a rebirth of liberty for all.

The major social trend of our time is toward increased government control of our daily lives. The pretense is that government will exercise control over business and industry for the good of all. The plan may be to control only the economy; but the economy cannot be politically directed without controlling persons. The economic order represents our livelihood, and whoever controls our livelihood has a powerful instrument to control us. It is not necessary to *own* a man in order to dominate him; *man is mastered by those who control the fruits of his labor.*

There can be no answer to the problems of any one business, or any one industry, or even of all industry until we find the solution to the crisis of our society. And the crisis of our society is the crisis of liberty. This nation was established that men, *voluntarily accepting the discipline of God's rule,* might enjoy the blessings of liberty. But as things now stand, we have been conditioned to curbs and controls to such an extent that we accept regimentation with hardly a protest. It appears that we are losing the will and the courage to resist enslavement.

Society Isn't 'Murdered'

In this historic City of Boston, the late President Lowell of Harvard University — lawyer, educator, philosopher, and student of history—made this statement: *"No society is ever murdered; it commits suicide."*

In the light of recent world-shaking events—political, social, economic and military—and our panicky reaction to them, we may well ask, "Is our American society now in the process of committing suicide? Are we losing our heritage of liberty? If so, can we reverse course, and what is the price we must pay to correct past errors?"

It is my purpose to show that we are indeed on a suicidal course; that in recent decades we have been yielding to government our individual responsibility to secure "the blessings of liberty for ourselves and our posterity"; that this deterioration, if continued, will lead ultimately to slavery; and, finally, that there *is* a way out—provided we are willing to *pay the price of redemption.* I shall estimate that price and you will see that it is very high, in terms of moral courage; individual reform; personal sacrifice.

To Preserve Our Freedom

It demands that we, too, be willing to pledge "our lives, our fortunes and our sacred honor" to regain and preserve our freedom, as was done once before at a crucial point in our history.

Before we assess our present situation, let us look briefly into the basic

concepts upon which our forebears erected this nation. Then we will be in a better position to determine the way out of our present crisis, and what is demanded of us.

The Founding Fathers rebelled against the established disorder of petty political tyranny. But the real American revolution began long before our Declaration of Independence. It began as an idea. It was a *religious* — not a *political* — idea. The real American revolution manifested itself in the Eighteenth Century as the *political* application of certain *religious* concepts about the nature of man and his place in the universe which are inherent in the Judeo-Christian tradition.

All Power Flows from God

The basic concept was that *all power* and *all authority* flow from God, the Ruler of the Universe. Since all men are creatures of God, each of us derives his individuality and his freedom directly from God. Thus, each person is sovereign in his relations with all other persons. It follows that no man can arrogate to himself the authority to trespass on the God-given or natural rights of others without violating the moral law, nor can any group invest itself with such authority.

The *political* application of this *religious* concept of natural rights gave birth to the idea of limited government and its corollary, the inalienable right of every individual to control the fruits of his own labor, that is, his honestly acquired property. This so-called "property right" is, in fact, a "human right." It stems from man's right to life, which carries with it the right to sustain that life on the fruits of his labor.

The "right to life," standing alone, has little meaning; to have its full significance, the right to life must be coupled to economic freedom. I repeat, *it is not necessary to own a man in order to control him; man is controlled by those who control the fruits of his labor, either by direct expropriation, by unwarranted taxation, or by any other means.*

The ideal of a free people composed of sovereign individuals was derived from these concepts. Government, relegated to the status of a service agency, was to be strictly limited in function to the protection and preservation of the rights of individuals. The powers of government, obtained by delegation from the citizens, were provisional. They were to be retained only as long as they were exercised within their carefully prescribed limitations.

Having wrested their independence from England by a bloody war in which they risked all they had, our forebears established a society whose political agency was to be kept within bounds by conforming it to the principles of the Declaration of Independence. A Constitution was drawn up to provide a legal structure for these political ideals and to specify the limited functions assigned to the new government by the people and the States. And, not content with the many restrictive provisions of the Constitution itself, they insisted upon further safeguards in the first 10 amendments, the Bill of Rights, which might better be called a "Bill of Prohibitions," since it is filled with such restrictive phrases as "Congress shall make no law" . . . "The right of the people—shall not be violated" . . . "The right of the people shall not be infringed . . .", etc.

A society was established on these shores designed to encourage the individual to develop his God-given talents to the full by providing maximum personal freedom of choice with a collateral personal responsibility for the results of that choice, *the risk of the penalty of the wrong choice being accepted as the price of freedom.* Thus, the individual was to be free to direct his own creative and productive energies, unhampered by restrictive laws, rules and regulations imposed by political masters.

Freedom Is Human Nature

While the emphasis was on the sovereign individual whose rights and liberties it was the duty of government to secure, *it must not be assumed that the profound thinkers who shaped our institutions were advocates of an undisciplined individuality.* They emphasized freedom because they believed that freedom is a requirement of human nature; but they held that this freedom must be exercised within the framework of God's moral code.

The political agency envisioned in the Declaration of Independence and set up by the Constitution was designed to end man's control of men. The goal was a society in which each person would be free to *govern himself,* with political intervention sanctioned only to remove outside interference with this aim. *The disciplines and controls were to come from within a man's own being* as he sought to live out the demands of his religion.

I am well aware of instances where the idealism in this scheme was distorted in actual practice by human ignorance, error and evil. This was to be expected. People are fallible, and no society is perfect. Not even its shortcomings, however, can detract from the nobility of the experiment in self-government launched here a century and three quarters ago.

French Revolutionary Tactics

By contrast, the French revolutionaries of this period tossed both religion and historical experience overboard. They tried to establish a completely rational and completely new society, one which sought to emphasize the primacy of the rights of man by denying the existence of God. The result was the reign of terror which ended in the dictatorship of Napoleon.

George Washington probably had both America and France in mind when he said in his Farewell Address:

"Of all the dispositions and habits which lead to political prosperity, religion and morality are indispensable supports. . . And let us with caution indulge the supposition that morality can prevail without religion. . . Reason and experience both forbid us to expect that national morality can prevail in exclusion of religious principle."

Thirty-five years after Washington's address, in 1831, the gifted French scholar, de Tocqueville, after an extended tour of America, observed:

"Whilst the law permits the Americans to do what they please, religion prevents them from conceiving, and forbids them to commit, what is rash or unjust."

The Founding Fathers knew that the natural roots of human liberty are founded in God's moral law, i.e., in religion. Cut off from these roots, liberty standing alone is too fragile a thing to survive very long in our kind of world. They knew that all the "law and the prophets" hang on the two great Commandments, *to love God with your whole being and to love your neighbor as yourself;* and that liberty without such love becomes li-

cense which leads ultimately to anarchy and then to slavery.

"Man ultimately will be governed by God or by tyrants," said Ben Franklin. And Canon Bell, the great Episcopal scholar, summarized the matter when he asked: "If there are not sufficient internal restraints on appetite, must there not be external restraints?"

In short, the design here was to establish a climate in which every person could achieve his greatest development in those positive factors which contribute to a good society—moral courage, integrity, understanding, reasonableness and individuality. These, in turn, would provide a firm base to act as a launching platform for attainment of the higher ends of life—such as scholarship, art, music, charity and *worship*.

Such is the basis of the real American revolution, whose essential purpose is to unfetter the creative and productive energies of men — and whose spirit is still the best hope of all mankind.

Where are we today? How far have we departed from these basic concepts of the nature of man and his relationships to God and to his fellowmen? Do we still look upon government as an agency responsive to the people, whose limited function is to protect the God-given rights of individuals, *all* individuals, from infringements by others, *all* others? Or have we come to look upon our own creation, government, as the all-knowing, all-powerful deity, the gold-plated calf, at whose altar we must worship if we are to be fed, clothed and housed?

This is a fundamental question, but as soon as we ask it seriously the contrast between our early standards and our present situation becomes glaringly obvious.

Federal Government Grows

An approximate gauge of the degree to which we have departed from those standards is the gigantic growth in size, scope and power of the Federal government—with the inevitable attendant shrinkage of state sovereignty and personal liberty.

Let us look at some of the latest statistics in this area, compiled by the Second Hoover Commission. In 1910, the Federal government cost the average American family $38 per year; in 1955 it was $1,600, an increase of 4200 per cent in costs while the population was increasing only 81 per cent. During this same period the Federal debt grew from slightly over $1 billion to $275 billions—and the Federal payroll (civilians only) from 384,000 to 2,362,000. At the same time the Federal Budget grew from $639,000,000 to $65 billions, an increase of about 1,000 per cent.

Taxes—1916 to 1954

In 1916, the tax collections of the Federal government amounted to only 23 per cent of the total tax take, state taxes being 12 per cent and local taxes 65 per cent. By 1954 the process of centralization in Washington had progressed so far that the figures were Federal 74 per cent, state 13 per cent, and local 13 per cent.

In addition to the officially declared $275 billions in national debt, the Hoover Commission found that there are $495 billions in contingent and "moral obligations," i.e., actual or implied guarantees by the Federal government.

The Federal government owns about one-fourth of the land acreage of Continental United States and now has total real property with an acquisition cost of $42.9 billion, marking a $2.9 billion increase over the previous year. It owns and operates some 3,000 business and commercial facilities, and its functions are carried on by 1,937 major operating units.

Our social disease is political elephantiasis, as is clearly indicated in the following official statement made by the late Rowland Hughes, at that time director of the Federal Bureau of the Budget. He said:

"The Federal government is, among other things, the largest electric power producer in the country, the largest insurer, the largest lender, and the largest borrower, the largest landlord and the largest holder of grazing land, the largest holder of timberland and the largest owner of grain, the largest ship owner and the largest truck fleet operator. For a nation which is the citadel and the world's principal exponent of private enterprise and individual initiative, this is an amazing list."

The increase in the size, scope and power of government raises the issue of personal liberty, for the history of liberty, as Woodrow Wilson reminded us, is the history of the limitations placed on governmental power. As government expands, the liberty of every one of us contracts. I'd like to recognize two objections which are often raised at this point, frequently by the same person. He admits that our government is enormously overgrown and that this inevitably curbs the liberty of individuals. But we need an omnipotent government for two reasons, he contends; first to cope with the threat of imperial communism abroad and second, to avoid the danger of a depression at home. To deal adequately with the fallacies in each of these contentions would require a separate discussion, if not a book. I have discussed these issues in other writings and can do little more here than indicate a willingness to tackle them.

There is this much truth in the first contention: If we grant that the United States have a divine mandate to police the world—which means unlimited commitments abroad of our resources, our money and our manpower—then it follows that we cannot have limited government at home. In order to implement our present foreign policy, Washington must have unlimited power to conscript both property and people. But if our own government exercises this kind of power over us we have installed a kind of domestic totalitarianism right here at home, first cousin to the thing we profess to be fighting.

We should not flatter communism by imitating any of its features. As a citadel of liberty, America is, in Lincoln's phrase, "the last best hope of earth." We are only as strong as we are free.

It was our ideal of liberty and justice for all that gave America its high place in the minds and hearts of men all over the world during the Nineteenth Century and until recently. We have largely lost that place, and can regain it only by a reaffirmation of the American ideal.

Maritain on America

The world-famous French philosopher, Jacques Maritain, in his recent book, *Reflections on America*, confirms this point as follows: "What the world expects from America is that she keep alive, in human history, a fraternal recognition of the dignity of man—in other words, the terrestrial hope of men in the Gospel." Such a reaffirmation of the American ideal would be

a major victory over communism both at home and abroad. It would also permit the adoption of a sound policy of national defense, because under modern conditions the defense of our country is based on a virile industrial machine operating in a free economy —and an economy is free only to the extent that it is not subject to arbitrary political intrusions. Which brings us to the second objection, that we need a big government to keep business operating in an orderly fashion and in the public interest.

Great White Father

There seems to be a widespread belief that as the result of vastly increased knowledge in the fields of economics, finance, science and technology, and through modern developments in managerial skills, the Federal government can spark booms, prevent depressions and control the business cycle. As one economist has expressed it, "We appear to have developed a childlike conviction that the Great White Father will take care of everything—that he will not only forgive our (economic) sins and mistakes but will absolve us from their consequences."

There is no evidence in history or logic that government, *which after all, is operated by ordinary mortals like you and me, not by gods or supermen,* has either the power, the intelligence or the wherewithal to generate a perpetual boom or prevent depressions. Government can delay or accelerate economic processes by its interventions; but it cannot suspend the operation of economic laws. We may choose to ignore natural law, but the consequences of our ignorance have a way of catching up with us.

Fallacies Repeated

Numerous fallacies are endlessly repeated. We are told, for instance, that a bumper crop of babies will insure continued prosperity—in spite of the evidence that mere increases in population do not automatically result in greater economic productivity; in fact, they may have an opposite effect, as in India and China.

We have been conditioned to believe that payments for *not* producing goods and services are just as wholesome and just as sound economically as expenditures made to produce the goods and services we need and want.

We are told that military expenditures stimulate the economy and induce prosperity, in spite of the fact that they are, on the whole, almost 100 per cent non-productive.

And not content with restricting their efforts at "doing good for people" to America, our enthusiastic "dealers" are now busily engaged in expanding their activities on a global basis—at the expense of the American taxpayer!

And so our digression returns us to the main question; the extent of our defection from the original American system.

It cannot be denied that the Federal government has vastly extended its size and powers. While doing so it has both undermined personal liberty and the political integrity of the 48 states. But that is not all.

The enormous growth of government has imposed a heavy tax burden on every citizen. But not even that excessive taxation is sufficient to pay the mounting costs of government, so the government resorts to inflation.

Basing their conclusions on studies of the financial behavior of nations, competent economists, such as Colin Clark, have concluded that when the tax take of government rises to the range of 20-25 per cent of the earned income of the people, large segments of the population will insist upon increases in the volume of the money as a means of easing the burden of direct taxes. In other words, they *demand* inflation.

It has been demonstrated many times that once the government assumes responsibility for the economic welfare of its citizens, the 20-25 per cent range in take of earned income is quickly reached. In the United States we are far beyond this point. We are now above 32 per cent! And the inevitable progression appears to be on schedule, as indicated by the fact that from 1933 to 1955 there has been a 500 per cent increase in the money supply of the United States (i.e., total deposits and currency outside banks) while the population increased only 32 per cent. In spite of the vastly increased productivity of our industrial machine, there has occurred, since 1933, a sharp decrease, some 55 per cent, in the purchasing power of our money!

There are many areas where government has intruded into the domain of private responsibility and has substituted the weight of political factors for the interplay of economic factors as a regulator of our economy. We all know the depressing story of the farm subsidies which, in the long run, have injured, not benefitted the farmer. They have resulted in $8 billion of unwanted farm products maintained in costly storage, with an attendant onerous regimentation of agriculture. In spite of these gifts, during the past six years there has been a 23 per cent decline in net farm income!

Other Cases

There are other activities which bid fair to rival the farm story, as, for example, water resources and public power developments, disaster assistance, area redevelopments, Federal aids to education, social security, unemployment relief, Federal health programs, minimum wage laws, loans to poor business risks, controlled money costs and others.

The mood of our country is one of apprehension — many of our people have an uneasy intuition that something has gone wrong, and they look for a scapegoat. The industrialist calls the politician venal and self-seeking; the labor leader and his political henchmen paint the industrialist as a greedy monster; the teacher, the minister, the doctor, the workman—all point the finger of accusation at other elements in our body politic. Each one denounces special privilege and government largesse—*when the other fellow gets it.* But when his own interests are involved, he rationalizes *his* project as being for the general welfare.

Unfortunately, many of these accusations appear to have substantial basis in fact! For example, we businessmen look for government subsidies or loans when we cannot obtain funds from private sources.

Each Makes Demands

The farmer demands a guaranteed income, subsidized electricity, irrigation and tools. The doctor is opposed to these socialistic measures and to socialized medicine, but wants subsidized training, research and laboratories. The educator points out the deplorable lowering of moral standards which results when a person is deprived of the responsibility for his own welfare—and then demonstrates that government aids to education are essential for national survival! The scientist implores government to pro-

vide generous funds for "research essential to the National Defense and the common welfare." The union official insists that he must have special laws which confer upon him the exclusive power to coerce and regiment his members, to abolish freedom of contract, and to resort to violence, all under the guise of "conserving labor's gains."

Young people want government to provide them with an education, a job and a pension. Old people are content, for the moment, with generous retirement privileges. And the man-in-the-street demands from government a subsidized house, food, medical care, and an ephemeral thing called "economic security."

Perhaps it would be well to remind those who clamor for government favor that when we concede to government the authority to *give*, we automatically concede the authority to *take*. Those who declaim in favor of *minimum* wage laws are setting the stage for *maximum* wage laws. When government is given authority to adjust farm prices upward it acquires authority to adjust them downward, and also, the power to set quotas, up or down. In such cases, political expediency becomes the guide to economic action.

In my work with the Second Hoover Commission, I received many written and oral statements from elected officials, public administrators, legislators, private citizens and from assorted beneficiaries of public "economic and social uplift" projects in all parts of the country.

The most discouraging feature of these communications was the apparent eagerness of a large and vociferous number of our people to reach for unearned government hand-outs.

If I were to take a man's belongings by stealth or violence, it would be theft—an immoral act for which the law would punish me. But by some strange mental process we have rationalized a code of ethics which provides that if we *vote* away a portion of another man's property and use it for the special benefit of ourselves or others, we have merely to call it "promoting the general welfare" in order to remove all taint of dishonesty. In other words, we, as voters, call upon government to do things for us which we would shrink from doing for ourselves as private individuals. The welfare state is just this kind of thing writ large, and yet there are some who would excuse the immorality of these political redistributions of property on the ground that they are legal!

It has been said that the people never give up their liberties except under some delusion. We have been losing our liberties under the delusion that government has some competence in the realm of economics, some magic multiplier of wealth, some sort of access to a fourth dimension from which economic goods may be had without working, but only for the voting.

Election Promises Cited

For endless examples, take any recent election campaign. Perhaps the more blatant of the claims of those seeking our votes is that, under their guidance, government will provide us with economic security, i.e., at least a minimum of economic goods — houses, food, clothing, and so on. But they glibly gloss over the fact that government does not produce the economic goods it promises to dispense; people produce them. The three factors in production are land, labor and capital; government is not one of these. Therefore, before government can give you something it must first take it away from someone else; and, conversely, before it can give somebody else anything, it must first take it away from you.

'To Pay Robin Hood'

This is not the road to prosperity or to justice. In current *theory*, government promises to play Robin Hood, robbing the rich to pay the poor. The theory is thoroughly *immoral* — but the *practice* is even *worse*. The promise is soon forgotten and Robin Hood robs rich and poor alike to pay Robin Hood. All this, in the name of the "general welfare!"

Any person who dares to question these immoral and uneconomic principles of the welfare state is accused of being uncharitable. Such accusations are gratuitous. Every person of good will wants to see other men better off —better housed, better clothed, better fed, better educated, and so on. But he has grave doubts about the propriety or the effectiveness of the means employed by the welfare staters. And when it comes to taking care of the unfortunate, *every lover of liberty believes devoutly in voluntary gifts and charity*. But he objects to the imposition of a "psuedo-charity" by government on unwilling givers as immoral and uneconomic — injurious alike to the recipients and to the forced contributors. He foresees these sure results of such action:

First—The victim is deprived of what he produces, which destroys his *incentive* to produce—as well as his faith in the two Commandments—"Thou shalt not covet" and "Thou shalt not steal."

Second—The one who received unearned gifts is relieved of the *need* to produce which, likewise, destroys *his* incentive and leads him to depend for his sustenance on a paternal government which demands his vote as a prerequisite for aid.

Third—As production inevitably declines, the coercive State must resort to force. With voluntary production destroyed, the powers-that-be seek a way to "whip up" production among the ever-increasing non-producers. Even the original beneficiaries become the victims of the thing they helped contrive. The "carrot" of incentive is now discarded in favor of the "stick" of coercion. The planners who hoped that their over-all blueprints for salvation might be accepted voluntarily now see that there is opposition which they must eliminate. They resort to force; their very devotion to the noble ends they seek blinds them to the immorality of the means they employ.

Fourth—Those who have appropriated the political power to make others conform to their wills inevitably develop a moral weakness. There are many instances in contemporary history of the well-intentioned politician who, after an extended period of exercising power, concludes that power and wisdom are so much alike that, since he wields power, he must also possess wisdom. He is converted to the seductive thesis that election to public office endows the official with *both* power and wisdom. At this point, he has difficulty distinguishing between what is morally right and what is politically expedient.

Such, in barest outline, is our present situation as I see it—an overextended government, excessive taxation, politically engineered inflation, mistaken ideas about economics, moral confusion, personal liberty in decline and a growing political idolatry.

Where lies the blame for our cur-

rent predicament—so foreign to the promises of the original American character and faith?

The fact is that all of us, you and I, must share the blame. Somewhere we got off the track. Over the past 50 years we have encouraged — nay we have actively participated in—the propagation of a misplaced faith in the power of government to accomplish all sorts of social, economic and even moral purposes. Implementing this faith we have thrust enormous powers upon government; or else we have, with great docility, acquiesced while the powers and functions of government have been extended, accelerated and centralized. Such an enhancement of political power at the expense of social power is correctly labeled "socialism."

The tendency of the American business manager, in common with citizens in other walks of life, is to be complacent about the advance of what might be called piece-meal socialism—political intrusion that does not encroach upor what he conceives to be his own territory. We tend to be apathetic about the general socialistic drift. In many instances we actively support socialistic measures under the guise of promoting prosperity or "developing the community." But we should now be aware that what threatens to engulf us is total state socialism.

To Oppose Socialism

Leaders in business, and all others in a position to influence public opinion, have a duty to actively oppose socialism wherever it appears, because socialism is ancient tyranny under a modern disguise — even though it has enlisted some misguided idealism in its behalf. If the promise of America is to be redeemed we must oppose state socialism on every level — philosophical and spiritual as well as economic and political. If our sole concern is merely that aspect of socialism which directly confronts our own company, or our own industry or our own community, we may contribute to the advance of socialism on other fronts by our neglect, if not by our positive actions.

More than 50 years ago, the great historian of Rome, Theodore Mommsen, visited our country. At a reception in his honor, he was asked, "Mr. Mommsen, what do you think of our country?" The great scholar replied, "With two thousand years of European experience before your eyes, you have repeated every one of Europe's mistakes. I have no further interest in you."

But we who love our country cannot so easily abandon interest in its welfare. Our country today is facing a crucial test in its struggle for survival. I believe the issue will be decided in the arena of moral values—not on the field of battle. Our current situation was well described by one of our military commanders in these words:

"It is the sort of moral crisis from which one merits the victory only when there is no longer a wide and embarrassing gap between one's stated aims and one's personal example."

Practice Before Preaching

This means that when we preach the gospel of freedom to the oppressed peoples of the world, we must first make sure that we believe in it—*and practice it*—at home. Otherwise our words carry no conviction.

We cannot sell the goods we do not have in stock. The fact is that today America is moving rapidly in the direction of a police state. Many of our people have been converted to the idea that freedom has been tried and found wanting, just as some believe that Christianity has been tried and found wanting. Many of us subscribe to the concept of the New and Fair Deals—the idea that by substituting man's law of force for God's law of love, people can be coerced into "doing good" for their neighbors. It appears that the self-anointed humanitarians who advocate these measures have convinced themselves that the second of the two great Commandments, "Thou shalt love thy neighbor as thyself," can be enforced by the police power of the State and that when this occurs the first, "Thou shalt love the Lord thy God," ceases to have much significance.

If this trend toward the police state does not frighten us, then we get our ulcers from some of its by-products; corruption in high places, juvenile crime, the perpetual world crisis, the cruelly oppressive tax burdens, and so on.

One cannot help recalling the prophecy uttered by the great English scholar and statesman, Macaulay, in 1857. Addressing himself to America he said, "Either some Caesar or Napoleon will seize the reins of government with a strong hand; or your republic will be as fearfully plundered and laid waste by barbarians in the Twentieth Century as the Roman Empire was in the Fifth;—with this difference, that the Huns and vandals who ravaged the Roman Empire came from without, and that your Huns and vandals will have been engendered within your own country by your own institutions."

Is there a way ahead which will take us out of this morass? Is there a way to recover the sanity and balance that once marked our life? I believe there is — and that it is also the *only* way out. But it is not by means of political nostrums. It is through the rehabilitation of those moral and spiritual values which I mentioned earlier.

Now you may ask, how can this rehabilitation be accomplished? I have seen no better answer than that given by Dr. Ralph Cooper Hutchison, until recently president of Lafayette College. In an inspiring address entitled, "Those Who Would Have Freedom From Tyranny," he said: ". . . Our common ideal is that these laws of God, these rights of man, *these responsibilities of the individual to the social order* should be preached and taught, but not otherwise be forced upon the minds and consciences of the human race. 'Go ye into all the world and teach all nations'—was the last command of the Master. To force men into ways of righteousness by police powers, to legislate them into social progress by laws, to brainwash them from their evil ways, to torture men to the confessional, to hypnotize the social order with mass psychiatry, to terrorize them into discipline, was never in the creed of spiritual America. This became rather a teaching and a preaching land. Education by conviction has been our ideal . . . The teaching persuading mission we believe is the way of social reform . . ."

Preserving Liberty

In the Virginia Bill of Rights, drafted by George Mason and adopted on June 12, 1776, there appears this statement in Article 15: "No free government or the blessings of liberty can be preserved to any people but by a firm adherence to justice, moderation, temperance, frugality and virtue, *and by frequent recurrence to fundamental principles.*"

What were the fundamental principles referred to by Mason? I believe

they were, broadly speaking, religious principles; not so much the doctrines and creeds which distinguish one sect or denomination from another, but rather the fundamental belief in God which they share. It was a basic American principle to maintain a strict separation between church and state, not because of any hostility to religion; quite the contrary. The state was to be secular in order that the society might be genuinely religious. DeTocqueville saw this clearly when he wrote in 1835, "Religion in America takes no direct part in the government of society but it must be regarded as the first of their political institutions." *A free society is possible only if it is composed of self-disciplined individuals.*

Convictions Visible

These convictions are visible in both the Declaration of Independence and the Constitution. The framers of those documents believed that they were transcribing "the laws of Nature and of Nature's God." The supremacy of the Constitution was believed to stem from its correspondence to a law superior to the will of human rulers.

Dr. Edwin S. Corwin, noted scholar and teacher of political economy, writing of "The 'Higher Law' Background of American Constitutional Law," describes this sanction as follows: "There are certain principles of right and justice which are entitled to prevail of their own intrinsic excellence, altogether regardless of the attitude of those who wield the physical resources of the community. Such principles were made by no human hands; indeed, if they did not antedate deity itself, they still so express its nature as to bind and control it. They are external to all Will as such and interpenetrate all Reason as such. They are eternal and immutable. In relation to such principles, human laws are, when entitled to obedience save as to matters indifferent, merely a record of transcript, and their enactment an act not of will or power but one of discovery and declaration."

In effect, the Founding Fathers were trying to set up a secular order based on their idea of the pattern laid down by God for man's conduct in society. This was in strict conformity with the basic truth that *every* social order derives its sanctions from the prevailing concept of the cosmic order. And as evidence of the faith in the sanction of "divine Providence" for their actions, they pledged to each other "their lives, their fortunes, and their sacred honor."

In the foregoing discussion I have not meant to imply that there are not problems peculiar to the economic and political levels, but I do mean to say that if men are not right at the deeper level — in their understanding of the nature of the universe and of God's moral code — they can tinker with economic and political problems from now until doomsday and still come up with the wrong answers — which is precisely what we have been doing in recent years.

It is a case of putting first things first, and the first thing, in my judgment, is a rehabilitation of those moral and spiritual values which are basic to the American dream. I believe that such effort on our part will call forth the supporting power of cosmic sanction, for God intended men to be free. "The God who gave us life," Jefferson observed, "gave us liberty at the same time." We will need conviction, courage, strength, understanding, humility, compassion and *faith* to set in motion what William James referred to as "those tiny, invisible, molecular moral forces which work from individual to individual, creeping in through the crannies of the world like so many soft rootlets, or like the capillary oozing of water, but which, if you give them time, will rend the hardest monuments of men's pride."

Disaster Unless Course Altered

Here let me disavow any intent to put on the mantle of a prophet of inevitable doom. While I am convinced that disaster lies ahead unless we change course, *I firmly believe that the world is now on the threshold of what could be such a dynamic expansion of spiritual growth and material productivity as to tax the capacities of all mankind! The world looks to America for moral leadership. We can supply that leadership if we emulate the Founding Fathers in their devotion to justice, moderation, temperance, frugality and virtue and frequent recurrence to fundamental principles.*

What specific steps must be taken? I believe that no one, no matter how exalted his position, can determine for 172 million people their day-to-day economic and social decisions concerning such matters as wages, prices, production, associations and others. So I propose that these decisions, and the problems connected therewith, be returned to the persons concerned.

Five Steps Listed

This could be done in five steps, as follows:

First—Let us stop this uneasy drift toward collectivism by ending all further private raids on the public treasury—whether conducted by unions, businessmen, farmers or any other group. In one respect, this is the easiest step of all—we need only refrain from passing more socialistic laws. But we have become so addicted to socialism, that it will be just as hard for us to break the habit as for an alcoholic to stop his compulsive drinking.

Second—Let us undertake at once an orderly demobilization of the bureaucracy by the progressive repeal of the socialistic laws now on our books. This is the road to social health and sanity, and it will be a struggle all the way; every pressure group in the nation will fight to retain its special privileges, subsidies and government protection. But if freedom is to live, all politically privileged positions must go!

Third—Of the powers that remain in government, let us return as many as possible to the States. For on the local level, the people are able to apply more critical scrutiny to the acts of their government agents and to take corrective action.

Fourth — Let us resolve that never again will we yield to the seduction of the government panderer who comes to us offering gifts paid for with our own money, in return for a surrender of our natural rights.

Fifth—Above all, let us hold high before our eyes the banner of individual moral responsibility, acknowledging that unless each one of us humbly tries to govern his actions by God's moral code—as this finds expression in such statements as the Ten Commandments and the Sermon on the Mount — he brings chaos into society and invites tyranny.

These measures require bold action. Those who take up the gage of battle will be the real pioneers of our age, the frontiersmen of the last half of the Twentieth Century.

At the close of the Constitutional

CONVENTIONS AND MEETINGS

1958

JULY

17 EEI Industrial Relations Committee, Headquarters, New York City

18 Oklahoma Utilities Association Accounting Section Conference, Ardmore Hotel, Ardmore, Okla.

AUGUST

4-29 Southeastern Electric Exchange Public Utility Executive Course, Georgia Institute of Technology, Atlanta, Ga.

SEPTEMBER

8- 9 EEI-AGA 1958-59 Accounting Division and Section Organization Meeting, Netherland Hilton Hotel, Cincinnati, Ohio

12-13 Maryland Utilities Association 34th Fall Conference, The Cavalier-Sir Walter Raleigh Hotels, Virginia Beach, Va.

14-17 Rocky Mountain Electrical League Annual Fall Convention, Jackson Lake Lodge, Moran, Wyo.

17-18 PEA 51st Annual Meeting, Penn Sheraton Hotel, Pittsburgh, Pa.

17-19 Northwest Electric Light & Power Association 51st Annual Meeting, Sun Valley Lodge, Sun Valley, Idaho

18-19 EEI Industrial Power & Heating Group, Uphoff's Rotunda, Wisconsin Dells, Wis.

18-21 Public Utilities Association of the Virginias 40th Annual Meeting, Greenbrier Hotel, White Sulphur Springs, W. Va.

22-24 EEI Meter and Service Committee, Driscoll Hotel, Corpus Christi, Texas

29-30
Oct. 1 Eleventh Annual Round Table Conference, Drake Hotel, Chicago, Ill.

1958

OCTOBER

1- 3 Indiana Electric Association Annual Convention, French Lick-Sheraton Hotel, French Lick, Ind.

1- 3 PIP Workshop Conference, Radisson Hotel, Minneapolis, Minn.

6- 8 EEI Prime Movers Committee, Hotel Statler-Hilton, Buffalo, N. Y.

9-10 EEI Transmission & Distribution Committee, Hotel New Yorker, New York City

13-14 EEI Electrical System and Equipment Committee, Hotel Barringer, Charlotte, N. C.

15-16 5th Annual EEI Area Development Workshop, Hotel Somerset, Boston, Mass.

16 Oklahoma Utilities Association Electric Light and Power Division Conference, Eastern District, Western Hills Lodge, Lake Sequoyah, Wagoner, Okla.

15-17 Wisconsin Utilities Association Electric and Gas Operations & Sales Convention, Schroeder Hotel, Milwaukee, Wis.

16-17 PEA Prime Movers Committee, Skytop Lodge, White Haven, Pa.

17 EEI Area Development Committee, Hotel Somerset, Boston, Mass.

17 Oklahoma Utilities Association Electric Light and Power Division Conference, Western District, Lawtonian Hotel, Lawton, Okla.

20-21 Southeastern Electric Exchange Engineering & Operation Section, Hotel Roanoke, Roanoke, Va.

22-24 EEI-AGA Taxation Accounting Committee, Tides Hotel and Bath Club, St. Petersburg, Fla.

24 Oklahoma Utilities Association Accounting Section Conference, Burlingame Hotel, Bartlesville, Okla.

30-31 Southeastern Electric Exchange Accounting Conference, Roosevelt Hotel, New Orleans, La.

Convention, Benjamin Franklin predicted that the Federal Union ". . . can only end in despotism, as other forms have done before it, when the people shall become so corrupt as to need despotic government, being incapable of any other." And when asked by an anxious citizen, "Well, Doctor, what have you given us, a republic or a monarchy?" Franklin replied, "A republic—if you can keep it."

"How long will the Republic endure?" asked the late David Starr Jordan, president of Stanford University. He answered his own question: "So long as the ideas of its founders remain dominant."

One last word: more than 700 years ago the great Italian poet, Dante, said: "The hottest places in hell are reserved for those who, in a period of moral crisis, maintain their neutrality."

The Countdown to Oblivion

(*Continued from page* 225)

—and in a voice the people understand and will believe. We must carry our brand of American evangelism to the non-believers too. Sure, it's harder to talk to an audience not already disposed our way. But the obligation is great and the stakes are greater.

I am a lifetime student of political science and a proud spokesman for capitalism. As much as this thing we call public relations has been my daily work in our industry, the investigation and exposure of the cancerous conspiracy of socialistic collectivism also has been my life's vocation. My first-hand probing of the global struggle for the mind of man, that is waged continually between the forces of freedom and those of tyranny, has taken me to many corners of the earth and on both sides of the Iron Curtain. It would have been tempting to have deluged you with statistics, to have drowned you in rafter-shaking reverberations of sound. Yes, the roast I might have cooked could have been prettily garnished and spiced to be more palatable—but it would have been the same meat you and I have digested many times.

I have spoken as an electric utilities public relations man. I choose rather to plead simply that we have a duty to the American economic system as well as to our own industry. We can't afford to waste any more time in halting the countdown to our own oblivion.

LET'S GO HOME, TAKE OFF OUR COATS, ROLL UP OUR SLEEVES, AND FIGHT BACK!

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